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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

SONOS, INC.,

Plaintiff,

v.

GOOGLE LLC,

Defendant.

Case No. 3:21-cv-07559-WHA

**SONOS, INC.'S
THIRD AMENDED COMPLAINT**

DEMAND FOR JURY TRIAL

Judge: Honorable William Alsup

1 **COMPLAINT**

2 Plaintiff Sonos, Inc. (“Sonos” or “Plaintiff”) hereby asserts claims for infringement of
3 United States Patent Nos. 9,967,615; 10,779,033; 10,469,966; and 10,848,885 (the “patents-in-
4 suit” or “asserted patents”); attached hereto as Exhibits A-D, respectively) against Defendant
5 Google LLC (“Google” or “Defendant”), and alleges as follows:

6 **INTRODUCTION**

7 1. Sonos is an American success story. It was founded in 2002 in Santa Barbara,
8 California by a handful of engineers and entrepreneurs with a vision to invent the world’s first
9 wireless, whole-home audio system. At the time, popular audio systems were dependent on a
10 centralized receiver hard-wired to each individual passive speaker throughout a home. Further,
11 most homes with Internet access had dial-up connections, the iPhone was still five years away,
12 and there were no streaming music services. The technological barriers confronting Sonos were
13 enormous.

14 2. To deliver on its vision, the Sonos team completely reimagined the in-home music
15 system as a decentralized network of smart playback devices, and it developed a platform that
16 could seamlessly and wirelessly distribute audio room by room or throughout the home at the
17 user’s discretion. Sonos created a “choose what to play, where to play it, and how loud” wireless
18 audio system that could not only perform without lag (*e.g.*, buffering or network interruptions)
19 but that was also so simple and intuitive that customers would make it part of their daily lives.

20 3. Commercial success did not come easy for Sonos as its vision was in many ways
21 ahead of its time. But year by year, consumers – and the entire industry – came to appreciate that
22 wireless multi-room audio devices and systems could not only work, but could become an
23 essential part of the listening experience. Success required staying true to Sonos’s disruptive
24 vision, continuing to innovate while adjacent industries caught up and customers became more
25 and more enamored with the idea of Sonos as they had the chance to encounter and use its
26 products. Once Sonos had taken all the risks and placed enormous bets on research and
27 development, the “first followers” began to copy Sonos’s innovations.
28

1 4. To this day, Sonos remains focused on innovations that further enhance the
2 listening experience. Sonos invests heavily in research and development and, as a result,
3 frequently invents new systems with new technologies, enhanced functionality, improved sound
4 quality, and an enriched user experience.

5 5. As a result, Sonos has become one of the world's leading providers of innovative
6 audio products. In recognition of its wide-ranging innovations, the U.S. Patent & Trademark
7 Office has granted or allowed Sonos more than 940 U.S. patents, including the patents-in-suit,
8 with hundreds more patents in other countries. The innovations captured by these patents cover
9 many important aspects of wireless multi-room audio devices/systems, including, for example,
10 how to manage and control groups of playback devices, how to facilitate seamless control and
11 transfer of audio playback among devices, and how to output amazing sound quality.

12 6. The industry has recognized the importance of Sonos's patents. For example,
13 Sonos earned a spot on the IPO list of "Top 300 Organizations Granted U.S. Patents" and the
14 IEEE recognized Sonos as having one of "[t]he technology world's most valuable patent
15 portfolios." *See* Exs. E and F.

16 7. Sonos launched its first commercial products in 2005 and has since released a wide
17 variety of critically acclaimed, patented, wireless multi-room audio products, including, for
18 example, the Play:1, Play:3, Play:5 (Gen 1 and Gen 2), One (Gen 1 and Gen 2), One SL, Move,
19 Playbar, Playbase, Beam, Sub, Connect, Port, Connect:Amp, Amp, Five, and Arc. *See, e.g.,*
20 Ex. G. Sonos's products can be set up and controlled by the Sonos app. *Id.*

21 8. Sonos's efforts have made it incredibly popular with its customers. Sonos
22 estimates that in fiscal year 2019 Sonos's customers listened to 7.7 billion hours of audio content
23 using its products. And, as of September, 2019, almost two thirds of Sonos households had
24 purchased and installed more than one Sonos product.

25 9. Sonos's record of innovation has made it the undisputed leader in what has come
26 to be called the "multiroom audio" field. *See, e.g.,* Ex. H (2018 Digital Trends: "Sonos is the
27 king of multiroom audio...."); Ex. I (2019 What Hi-Fi: "[N]o multi-room offering is as complete
28 or as pleasurable to live with as Sonos.").

10. Sonos has already sued Google for infringing patents on its first group of inventions involving the set-up, control, playback, and synchronization of wireless playback devices. This case involves a second group of inventions which, as described more extensively below, tackle the novel technological challenges of how to transfer playback of a stream of music provided by a cloud-based service from one device to another and how to create, manage, and invoke “zone scenes” to configure how multiple playback devices work together.

GOOGLE BEGINS INFRINGING

11. Almost a decade after Sonos created the smart-speaker market, Google entered the space. Initially, Google sought to work with Sonos and, through those efforts, gained access to Sonos’s engineers, products, and technology. All too quickly, however, Google shifted focus and began to develop and sell products that copied Sonos’s technology and infringed Sonos’s patents.

12. Part of what makes Sonos so successful is that, through its application, Sonos is compatible with many different third-party music streaming services. When Google publicly launched its own streaming music service – Google Play Music – in late 2011, Sonos worked with Google to integrate the Google Play Music service into the Sonos ecosystem. As a result, Google Play Music launched on the Sonos platform in 2014. *See, e.g.*, Ex. J.

13. This should have benefited everyone: Sonos’s customers gained access to another streaming service and Google Play Music users gained access to Sonos’s devices. But as the press recognized at the time, Sonos’s integration work with Google was especially “deep” and therefore gave Google a wide aperture through which to view Sonos’s proprietary technology. *Id.* (2014 Wired: “This is the first time this sort of deep integration has happened between a third party music service and Sonos.”). The copying soon followed.

14. Just eighteen months later, in 2015, Google began willfully infringing Sonos’s patents. On information and belief, Google used the knowledge it had gleaned from Sonos to build and launch its first wireless multi-room audio product – Chromecast Audio.

15. Google’s Chromecast Audio began what has turned into Google’s relentless effort to copy Sonos and use Sonos’s patented technology. For example, although Google’s original Chromecast Audio did not yet include Sonos’s patented multi-room audio functionality, even

1 when it was launched Google was working to add that Sonos-patented feature. *See* Ex. K (2015
 2 The Guardian: “Google is also working on multi-room audio streaming using the Chromecast
 3 Audio, but it will not support the popular feature out of the box.”). And, when Google added the
 4 infringing feature, the press immediately noted how this “major feature update” made Google’s
 5 product even more “like the ones made by Sonos:”

6 Google’s recently-launched Chromecast Audio adapter is getting a
 7 major feature update this week: Consumers will now be able to group
 8 multiple Chromecast audio adapters to stream their favorite music
 9 simultaneously in more than one room, similar to the multi-room
 support available for internet-connected loudspeakers like the ones
 made by Sonos.

10 Ex. L (2015 *Variety* article entitled “Google’s Chromecast Audio Adapter Gets Multi-Room
 11 Support Similar to Sonos”); *see also* Ex. M (2015 Pocket-Lint) (“You control your Sonos
 12 experience with one app. Well, thanks to a new software rollout, Chromecast Audio can pretty
 13 much do the same thing.”).

14 16. This has become a consistent pattern. Time and again, Google has added features
 15 to its products that first appeared in Sonos’s products and which make use of Sonos’s patented
 16 technology.

17 **GOOGLE’S INFRINGEMENT ACCELERATES DESPITE CONTINUED NOTICE OF**
 18 **INFRINGEMENT**

19 17. Since 2015, Google’s misappropriation of Sonos’s patented technology has
 20 proliferated. Google has expanded its wireless multi-room audio system to more than a dozen
 21 infringing products, including the Google Home Mini, Google Home, Google Home Max, and
 22 Pixel phones, tablets, and laptops. And Google has persisted in infringing even though Sonos has
 23 warned Google of its infringement on at least ten separate occasions dating back to 2016.

24 18. For example, in 2016 (a year after Google launched the Chromecast Audio
 25 wireless adapter), Google released the Google Home multi-room audio player (which was
 26 controlled by Google’s rebranded multi-room controller app – the Google Home app). Unlike the
 27 Chromecast Audio, the Google Home added an internal speaker driver making it an “all-in-one”
 28 audio player akin to Sonos’s prior Play:1, Play:3, and Play:5 products.

1 19. Sonos raised the issue of infringement as to these products with Google as early as
2 August 2016. Sonos hoped that Google would respect Sonos's intellectual property and the
3 extensive work Sonos had put into inventing and developing its products. But Google did no
4 such thing.

5 20. On September 2, 2016, Sonos sent John LaBarre and Allen Lo at Google a
6 document identifying 24 issued Sonos patents and 4 allowed Sonos patent applications, including
7 ones that share a respective common specification with the '615 Patent, the '966 Patent, the '033
8 Patent, and the '885 Patent. Ex. BY.

9 21. On October 13, 2016, Sonos sent John LaBarre, Allen Lo, and Louis Sorell at
10 Google a document identifying 22 issued Sonos patents and 6 allowed Sonos patent applications
11 (including ones that share a respective common specification with the '615 Patent, the '966
12 Patent, the '033 Patent, and the '885 Patent) and identifying relevant Google products for each.
13 Ex. BZ.

14 22. On October 26, 2016, Sonos sent John LaBarre at Google a PowerPoint
15 presentation identifying 29 issued Sonos patents and 3 allowed Sonos patent applications
16 (including ones that share a respective common specification with the '615 Patent, the '966
17 Patent, the '033 Patent, and the '885 Patent). Ex. CA.

18 23. On January 31, 2018, Sonos sent Matthew Gubiotti at Google a PowerPoint
19 presentation identifying 16 issued Sonos patents and 1 allowed Sonos patent application
20 (including ones that share a common specification with the '966 Patent and the '885 Patent), and
21 identifying relevant Google products for each, including products accused in this case. Ex. CB.

22 24. On July 12, 2018, Sonos sent John LaBarre and Matthew Gubiotti at Google a
23 document identifying 58 issued Sonos patents (including ones that share a respective common
24 specification with the '615 Patent, the '966 Patent, the '033 Patent, and the '885 Patent) and
25 identifying relevant Google products for each, including products accused in this case. Ex. CC.

26 25. On February 22, 2019, Sonos sent Matthew Gubiotti, Bradley Riel, and Tim
27 Kowalski at Google a letter enclosing a link to an electronic repository containing 100 claim
28 charts detailing Google's infringement of 92 issued Sonos patents and 8 allowed Sonos patent

1 applications (including the '615 Patent and others that share a respective common specification
2 with the '615 Patent, the '966 Patent, the '033 Patent, and the '885 Patent). Ex. CD.

3 26. On June 13, 2019, Sonos sent Bradley Riel and Tim Kowalski at Google a
4 PowerPoint presentation reiterating the 100 claim charts detailing Google's infringement of 92
5 issued Sonos patents and 8 allowed Sonos patent applications sent on February 22, 2019 and
6 identifying 6 issued Sonos patents (including one that shares a common specification with
7 the '966 Patent and the '885 Patent) and identifying relevant Google products for each. Ex. CE.

8 27. On January 6, 2020, Sonos sent Bradley Riel and Tim Kowalski at Google a pre-
9 filing copy of an International Trade Commission Complaint, a U.S. District Court complaint, and
10 claim charts detailing Google's infringement of 5 issued Sonos patents via products that are also
11 accused in this case.

12 28. On September 28, 2021, Sonos sent Bradley Riel and Tim Kowalski at Google a
13 pre-filing copy of Sonos's complaint detailing Google's infringement of, *inter alia*,
14 the '615, '033, and '966 Patents.

15 29. On January 8, 2021, Sonos's counsel sent Google's counsel a copy of an amended
16 complaint and supplemental infringement contentions detailing Google's infringement of the '885
17 Patent.

18 30. These instances establish that Google was, over at least a five-year period, put on
19 repeated notice of Sonos's patents and the breadth of Sonos's patent portfolio concerning
20 specifically the products accused in this case. At a minimum, this knowledge and repeated and
21 persistent disclosure establishes that Google was, for some time periods, at least willfully blind to
22 the fact that the asserted patents existed and, for other time periods, had actual knowledge of the
23 existence of the asserted patents. Further, this knowledge and repeated and persistent disclosure
24 establishes that Google, for some time periods, had at least failed to investigate whether it
25 infringed the asserted patents despite the existence of a high risk of infringement and, for other
26 time periods, had actual knowledge of a credible and specific allegation of infringement of the
27 asserted patents. In this way, Google was or at least should have been aware of each of the
28

1 asserted patents starting from at least their respective dates of issuance and of its infringement
2 thereof.

3 31. Despite this consistent and repeated notice, Google did not stop infringing.
4 Instead, it doubled down and introduced new infringing products, making use of even more
5 patented technology from Sonos.

6 32. For example, in 2017, eight years after Sonos introduced its first all-in-one audio
7 player – the Play:5 – Google released its first all-in-one audio players – the Google Home Max
8 and the Google Home Mini. Google’s Home Max in particular was seen as a “Sonos Clone” and
9 a “not-so-subtle copy of the [Sonos] Play:5 speaker...” Ex. N. As explained by Gizmodo, “[i]t’s
10 also hard not to see the [Google Home Max] device as something of a jab at Sonos.” *Id.*; *see*
11 *also, e.g.*, Ex. O (2017 Android Central: “You can’t help but look at Google Home Max... and
12 come to the conclusion that Google is sticking its nose where Sonos has been for years.”).

13 33. Then again, in February 2019, Sonos put Google on notice of infringement of 100
14 Sonos patents, including asserted United States Patent No. 9,967,615.

15 34. Nothing Sonos did, however, deterred Google from expanding its infringement.
16 Google’s infringing product line now includes at least the Chromecast, Chromecast Ultra,
17 Chromecast Audio, Chromecast with Google TV, Home Mini, Nest Mini, Home, Home Max,
18 Home Hub, Nest Hub, Nest Hub Max, Nest Audio, and Nest Wifi Point (individually or
19 collectively, “Google Audio Player(s)” or “Cast-enabled media player(s)”), all of which can be
20 controlled by, for example, the YouTube Music app, the Google Play Music app, the YouTube
21 app, and the Google Home app (individually or collectively, “Google App(s)”). *See, e.g.*, Exs. P-
22 Z.

23 35. In addition to providing the Google Apps for controlling the Google Audio
24 Players, Google also offers various infringing hardware controllers that are pre-installed with the
25 Google Play Music app, YouTube app, and/or YouTube Music app (and capable of downloading
26 and executing the Google Apps that are not pre-installed). These infringing hardware controllers
27 include, for example, Google’s “Pixel” phones, tablets, and laptops (*e.g.*, the Pixel 3, Pixel 3 XL,
28 Pixel 3a, Pixel 3a XL, Pixel 4, Pixel 4 XL, and Pixel 4a phones, the Pixel Slate tablet, and the

Pixelbook and Pixelbook Go laptops) (individually or collectively, “Google Pixel Device(s)”).
See, e.g., Exs. AA-AE.

36. Herein, “Google Wireless Audio System” refers to one or more Google Audio Players, one or more Google Pixel Devices, and/or one or more Google Apps.

37. In order to hold Google accountable for its willful infringement of Sonos’s patents, Sonos filed a complaint in January 2020 asking the United States International Trade Commission (“ITC”) to institute an investigation into Google’s unlawful importation into and sale in the United States of infringing products. The ITC instituted an investigation, *In re Certain Audio Players and Controllers, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-1191, to determine whether Google’s audio players and controllers infringe five Sonos patents directed to fundamental features such as playing music on multiple speakers in synchrony, playing music in stereo over two or more players, a controller that can easily setup a player on a wireless network, and playback-control features such as controlling both the volume of individual speakers and a group of speakers.

38. While the ITC Investigation has been pending, Google has continued to increase its infringement. For example, press reports indicate that Google is introducing new products and changes that mean Google is “one step closer to replacing your Sonos system.” Ex. AF; *see also* Ex. AP (“The new functionality appears to be the most direct challenge to the likes of Sonos, which has enjoyed enormous success by creating a series of connected speakers and soundbars that can play music simultaneously – or individually.”). The press has similarly noted that Google’s new speaker “could be a new rival for the likes of the Sonos One, the best smart speaker you can buy in 2020.” Ex. AG; *see also* Ex. AP (“Just like Sonos, you can also change the volume on each speaker individually from the main interface.”). And press reports indicate that Google has expanded its use of Sonos’s stereo pair technology into the new smart-speakers even though Google is currently being sued for infringing a Sonos patent on this technology. Exs. AH, AP.

39. Google itself has also highlighted the importance of its use of Sonos’s technology. For example, Google’s Chris Chan publicly stated that “[c]ontrolling the audio throughout my

1 home, no matter who's listening, has been incredibly helpful" and that "[t]oday, we're expanding
2 that control. You can already manually group Nest devices in order to play the same music on
3 various speakers at the same time, and now we're launching multi-room control so you can
4 dynamically group multiple cast-enabled Nest devices (speakers, Smart Displays, Chromecasts)
5 in real-time to fill multiple rooms with music." Ex. AH; *see also* Ex. AP. Again, Google has
6 expanded its use of this technology while it is being sued for infringing Sonos's patents on this
7 precise technology.

8 40. Google's aggressive and deliberate expansion of its use of Sonos's patented
9 technology has led observers to conclude that "[n]o market is safe from [the] search engine
10 monster" and that Google was specifically "offering new products to compete with Sonos in the
11 music streaming market." *See* Ex. AI.

12 **GOOGLE'S CONTINUED INFRINGEMENT FORCES THIS SUIT**

13 41. In the face of Google's unrelenting infringement, Sonos has no choice but to bring
14 this suit. In this action, Sonos asserts patents that are not at issue in the ITC or the related district
15 court action.

16 42. Sonos's ITC suit addressed Google's infringement of Sonos patents covering
17 fundamental aspects of wireless, whole-home audio systems. While groundbreaking, those
18 patents represent only some of Sonos's ongoing innovation from its inception to today. Through
19 its foresight, substantial investment, and relentless pursuit of excellence, Sonos built on its
20 previous success and invented a number of key features consumers have grown to expect and
21 demand in streaming music listening.

22 43. For example, as explained more fully below, Sonos's U.S. Patent Nos. 9,967,615
23 and 10,779,033 (the "'615 Patent" and the "'033 Patent," respectively) cover key aspects of
24 Sonos's inventive approach for streaming music from a cloud-based service to a media playback
25 system, including technology for transferring playback responsibility for a cloud-based stream of
26 media content from a user's device, such as a smart phone, to a media playback system that is
27 then configured to retrieve and play back the cloud-based media content.

1 44. Sonos was well ahead of the field when it began to develop these inventions in
2 2011. At that time, Sonos's audio system, including its smart-phone app controller, was in a
3 category all its own. Moreover, streaming content from cloud-based media services for playback
4 by computers – let alone other types of networked devices like smart phones and smart speakers –
5 was in its infancy. Nonetheless, at a time years before Google released its first Chromecast
6 product, Sonos envisioned a novel experience of continuous and intuitive control of a user's
7 entire streaming listening experience, across multiple networked devices, including smart phones
8 and/or smart speakers. That vision gave rise to the innovation of technology for enabling
9 seamless transition of playback responsibility for cloud-based media content between different
10 networked devices, such as a smart phone and a smart speaker. This paradigm is now
11 fundamental across the entire streaming industry as user expectations of continuous listening
12 experiences have continued to converge with Sonos's vision.

13 45. Similarly, Sonos's U.S. Patent Nos. 10,469,966 and 10,848,885 (the "'966 Patent"
14 and "the '885 Patent," respectively) cover some of Sonos's inventions related to creating,
15 managing, and invoking "zone scenes" to configure how multiple players work together. With
16 these patents, Sonos once again anticipated what consumers would want and invented a new
17 feature for its system. Using the inventions of the '966 and '885 Patents, playback devices can be
18 grouped together for synchronous playback in an easy and intuitive manner using "zone scenes."
19 Advantageously, such a "zone scene" can be accessed and invoked by multiple devices and in
20 various ways (*e.g.*, by voice) even when the particular controller that created the "zone scene" is
21 not on the network.

22 46. Sonos provided a pre-filing copy of both the original complaint and Sonos's First
23 Amended Complaint to Google, thereby providing clear pre-suit notice of infringement of the
24 patents-in-suit. Google, however, has never given any indication that it is willing to stop
25 infringing, and did not do so in response to receiving a draft of either the original complaint or the
26 First Amended Complaint.

27 47. On information and belief, Google is unwilling to stop infringing because its
28 infringement of Sonos's patented inventions has paved the way for Google to generate billions of

dollars in revenue. A December 2018 market report by Royal Bank of Canada (“RBC”), for example, concluded that Google sold over 40 million Google Home devices in the U.S. and that Google generated \$3.4 billion in Google Home revenue in 2018 alone. Ex. AJ at pp. 1, 4, 14-15. RBC also found that, as of August 2017, Google had sold more than 55 million Chromecast devices and that Google generated almost \$1 billion in Chromecast revenue in 2018. *Id.* at 4,16, 18. Further, RBC estimated that, in 2018, Google generated \$3.4 billion in Pixel device revenue. *Id.* at 4, 8.

48. By 2021, RBC estimates that Google will be annually selling over 100 million Google Home devices in the U.S. and generating over \$8 billion in Google Home revenue. *Id.* at 4, 14-15. In addition, by 2021, RBC estimates that Google will annually generate \$2.4 billion in Chromecast revenue and nearly \$7 billion in Pixel device revenue. *Id.* at 4, 8, 18.

49. The revenue obtained from the sale of Google’s hardware devices vastly understates the value to Google of infringing Sonos’s patents. On information and belief, Google is intentionally selling the infringing products at a discount and/or as a “loss leader” with the expectation that this will allow Google to generate even more revenue in the future – *e.g.*, by powering Google’s continued dominance of the market for search advertising. In particular, Google’s infringement of Sonos’s patented inventions has helped and/or will help Google generate significant revenue from the use of Google’s hardware devices including advertising, data collection, and search via the Google Wireless Audio Systems. As the *New York Post* explained, “Amazon and Google both discounted their home speakers so deeply over the holidays that they likely lost a few dollars per unit ... hoping to lock in customers and profit from later sales of goods and data about buying habits.” Ex. AK. Similarly, *News Without Borders* explained that companies like Google are using their “smart speaker” devices as “‘loss leader[s]’ to support advertising or e-commerce.” Ex. AL.

50. On information and belief, Google’s copying of Sonos’s patented inventions has also helped and/or will help Google generate significant revenue from driving its users to make purchases such as streaming music subscriptions and retail purchases via the Google Wireless Audio Systems. For example, an NPR “smart speaker” survey found that 28% of survey

1 respondents agreed that “[g]etting [a] Smart Speaker led [them] to pay for a music service
 2 subscription,” and Google offered at the time two such subscriptions – Google Play Music and
 3 YouTube Music. Ex. AM at p. 20. Likewise, the NPR survey also found that 26% of
 4 respondents use their smart speakers “regularly” to “add [items] to shopping list.” *Id.* at 14; *see*
 5 *also, e.g.*, Ex. AL (stating that companies like Google are using their “smart speaker” devices as
 6 “‘loss leader[s]’ to support... e-commerce.”).

7 51. On information and belief, Google is willfully infringing Sonos’s patents as part of
 8 Google’s calculated strategy to vacuum up invaluable consumer data from users and, thus, further
 9 entrench the Google platform among its users and fuel its dominant advertising and search
 10 platforms.

11 52. Google’s infringement – and its strategy to sell its infringing products at a loss to
 12 develop alternative revenue streams – has caused significant damage to Sonos. For example, the
 13 Google Home Mini predatorily implemented Sonos’s valuable patented technology into an all-in-
 14 one wireless multi-room product that Google sells at a highly subsidized price point or even gives
 15 away for free. Ex. AN (“At \$49, Google Home Mini works on its own or you can have a few
 16 around the house, giving you the power of Google anywhere in your home.”); Ex. AL (“Google
 17 partnered with Spotify to offer Home Minis as a free promotion for Spotify Premium customers.
 18 Spotify’s premium userbase is nearly 90 million, so if even a fraction of users take the free offer,
 19 a massive influx of Google smart speakers will enter the market.”).

20 **ADDITIONAL FACTS ESTABLISH THAT GOOGLE’S INFRINGEMENT HAS BEEN**
 21 **AND CONTINUES TO BE WILLFUL**

22 53. In addition to the facts above, additional facts establish that Google had actual
 23 knowledge of the asserted patents and knowledge of its infringement thereof prior to the filing of
 24 this amended complaint. To the extent required, Google had this prior knowledge with sufficient
 25 time to assess the asserted patents and the accused products and decide whether to continue its
 26 allegedly infringing activity or whether to cease.

27 54. As mentioned above, on September 28, 2021, Sonos sent Bradley Riel and Tim
 28 Kowalski at Google a pre-filing copy of a draft Sonos complaint detailing Google’s infringement

1 of, *inter alia*, the '615, '033, and '966 Patents. And on January 8, 2021, Sonos's counsel sent
2 Google's counsel a copy of an amended complaint and supplemental infringement contentions
3 detailing Google's infringement of the '885 Patent.

4 55. Also on September 28, 2020, prior to Sonos's commencement of the instant action
5 on September 29, 2020, Google initiated a declaratory judgment ("DJ") action in this Judicial
6 District asking the Court for an affirmative ruling that, by way of Google's making, using, selling,
7 offering for sale, and/or importation of the accused products, Google does not infringe at least
8 the '615, '033, and '966 Patents. On February 4, 2022, Google amended this DJ action to include
9 a request for the same relief as to the '885 Patent.

10 56. Google has represented to the Court and to Sonos that it had a Rule 11 basis to file
11 its DJ action.

12 57. Federal Rule of Civil Procedure 11(b)(3) states:

13 By presenting to the court a pleading, written motion, or other
14 paper—whether by signing, filing, submitting, or later advocating
15 it—an attorney or unrepresented party certifies that to the best of the
16 person's knowledge, information, and belief, formed after an inquiry
17 reasonable under the circumstances . . . the factual contentions have
evidentiary support or, if specifically so identified, will likely have
evidentiary support after a reasonable opportunity for further
investigation or discovery.

18 58. Thus, by presenting to the Court and signing Google's DJ pleading on September
19 28, 2020, Google's counsel represented that the factual contentions contained therein had
20 evidentiary support and were based on knowledge, information, and belief, formed after an
21 inquiry reasonable under the circumstances.

22 59. In order to have conducted a sufficient investigation into whether or not the
23 accused products practiced the asserted patents for purposes of seeking affirmative declaratory
24 relief from this Court, Google and its counsel must have (i) conferred with Google engineers
25 concerning the operation of the accused products, (ii) reviewed the specifications, claims, and file
26 histories of the asserted patents, and (iii) compared the operation of the accused products to the
27 claims of the asserted patents and allegedly concluded that, for one or more reasons, the accused
28 products did not, according to Google, practice one or more elements of the asserted claims.

1 60. In order to have conducted this investigation and to have formed a reasonable
2 belief as to Google's alleged non-infringement of the asserted patents in time for its filing on
3 September 28, 2020, Google was conducting its investigation days, weeks, or months prior to
4 September 28, 2020. Accordingly, Google had pre-suit knowledge of the asserted patents and
5 pre-suit knowledge of its infringement thereof well before September 28, 2020. This pre-suit
6 knowledge was the result of Google's own investigation that it conducted to support its DJ action.

7 61. In the alternative, and to the extent that Google first learned of the '966 and '033
8 Patents on September 28, 2020 when Sonos provided a pre-filing draft Complaint to Google, and
9 to the extent Google first learned of the '885 Patent on January 8, 2021 when Sonos provided a
10 draft pre-filing amended Complaint and supplemental infringement contentions to Google, the
11 time between learning of the asserted patents and filing its DJ action was nevertheless a sufficient
12 time for Google to have conducted its investigation and thus learned of the asserted patents and
13 its alleged infringement thereof. Despite the difference between receiving Sonos's notice and
14 filing its DJ action being mere hours (which illustrates the implausibility of Sonos's letter being
15 the initial notice to Google), Google nevertheless took action right away to (i) confer with Google
16 engineers concerning the operation of the accused products, (ii) review the specifications, claims,
17 and file histories of the asserted patents, and (iii) compare the operation of the accused products
18 to the claims of the asserted patents and allegedly conclude that, for one or more reasons, the
19 accused products, according to Google, did not practice one or more elements of the asserted
20 claims. *See* Dkt. 27-3 at 3 ("[U]pon receiving Sonos's letter, Google investigated Sonos'
21 allegations, determined that it had a Rule 11 basis for non-infringement, and filed the instant
22 declaratory judgment action."). Accordingly, Google had pre-suit knowledge of the asserted
23 patents and pre-suit knowledge of its infringement thereof before Sonos initiated this suit on
24 September 29, 2020. This pre-suit knowledge was the result of both Sonos's pre-suit draft
25 Complaint detailing Google's infringement of the '966, '615, and '033 Patents, as well as
26 Google's own investigation that it conducted to support its DJ action.

27 62. Moreover, because Google had sufficient time to prepare and file its DJ action,
28 Google also had time to take steps to begin avoiding infringement. However, on information and

1 belief, Google took no such steps between the time that it learned of its infringement and filed its
2 DJ action.

3 63. In either case, as a result of Google's own investigation to support the factual
4 allegations it levied in its DJ action, Google learned of the asserted patents and learned of its
5 alleged infringement thereof. This investigation gave Google sufficient time to assess the
6 asserted patents, assess the accused products, and determine whether it would cease its allegedly
7 infringing activity. Rather than cease its infringing activity, switch to an alternate design, or
8 request to Sonos that Google ought to be given more time to do the above, Google chose to
9 continue to make, use, sell, offer for sale, and import the accused products and thus, to continue
10 its allegedly infringing activity, despite its knowledge of the asserted patents and its knowledge of
11 its alleged infringement thereof.

12 64. Finally, Google's infringement since the initial filing of this action on September
13 29, 2020 has been willful. Sonos's initial complaint set forth detailed infringement allegations
14 demonstrating how each of the accused products meets each and every element of the asserted
15 claims. Over the course of the case, Sonos's infringement allegations have only further
16 crystalized, as evidenced by the various infringement contentions that Sonos served Google with
17 on December 11, 2020, February 17, 2021, June 4, 2021, July 14, 2021, September 10, 2021,
18 October 21, 2021, January 20, 2022, February 7, 2022, March 2, 2022, and March 18, 2022.
19 These infringement contentions include citations to Google's own documents demonstrating that
20 the products practice the claim elements. They also include pin-cites to Google's source code
21 illustrating where and how the infringing functionality takes place, as well as narrative
22 descriptions of how the accused products engage in infringing functionality. When Google
23 advanced multiple different and conflicting constructions of certain claim terms, Sonos revised its
24 infringement contentions to illustrate how Google still infringed even under Google's incorrect
25 interpretations of these claim terms. Despite this, Google has not changed the design or operation
26 of the accused products since these products were accused of practicing the asserted claims. On
27 information and belief, Google has not undertaken any effort to investigate or even attempt in
28

1 good faith to change the functionality of the accused products to a design that would arguably not
2 infringe.

3 65. Nor has Google at any point to-date presented an articulable non-infringement or
4 invalidity position. Sonos has asked for Google's non-infringement positions via interrogatory.
5 On September 7, 2021, Google answered only with a bald assertion that Sonos has not established
6 infringement and, for each asserted independent claim, a conclusory statement that Google does
7 not practice each and every claim element. Similarly, although a good faith belief in invalidity
8 should not act as a defense to a claim of willful infringement, Google's invalidity contentions
9 served pursuant to the local patent rules of this Court contain no explanation of its alleged
10 invalidity positions. For instance, as Sonos has already pointed out to Google, Google's prior art
11 charts are merely block quotes of large portions of its cited references with no explanation
12 whatsoever as to how or why the quoted portions meet the elements of the asserted claims,
13 especially under Google's own constructions of various claim elements. Google has declined to
14 address these deficiencies even after Sonos pointed them out to Google. Accordingly, Google's
15 infringement of the asserted patents has been and remains willful since at least the day this suit
16 began (and every day thereafter) because Google has no reasonable non-infringement or
17 invalidity defense.

18 **THE PARTIES**

19 66. Sonos, Inc. is a Delaware corporation with its principal place of business at 614
20 Chapala Street, Santa Barbara, California 93101. Sonos is the owner of the patents-in-suit.
21 Sonos holds all substantial rights, title, and interest in and to the patents-in-suit.

22 67. Google LLC is a Delaware limited liability corporation with its principal place of
23 business at 1600 Amphitheatre Parkway, Mountain View, CA 94043.

24 68. Google LLC is one of the largest technology companies in the world and conducts
25 product development, engineering, sales, and online retail, search, and advertising operations in
26 this District.

27 69. Google LLC directly and/or indirectly develops, designs, manufactures,
28 distributes, markets, offers to sell, sells, and/or imports the infringing Google Wireless Audio

1 System at issue in this litigation in/into the United States, including in this judicial district, and
2 otherwise purposefully directs infringing activities to this District in connection with its Google
3 Wireless Audio System.

4 **JURISDICTION AND VENUE**

5 70. This action for patent infringement arises under the Patent Laws of the United
6 States, 35 U.S.C. § 1 et. seq. This Court has original jurisdiction under 28 U.S.C. §§ 1331 and
7 1338.

8 71. This Court has personal jurisdiction over Google because, pursuant to Fed. R. Civ.
9 P. 11(b)(3), Google has: (1) availed itself of the rights and benefits of the laws of the State of
10 California, (2) transacted, conducted, and/or solicited business and engaged in a persistent course
11 of conduct in the State of California (and in this District), (3) derived substantial revenue from the
12 sales and/or use of products, such as the infringing Google Wireless Audio System, in the State of
13 California (and in this District), (4) purposefully directed activities (directly and/or through
14 intermediaries), such as shipping, distributing, offering for sale, selling, and/or advertising its
15 infringing Google Wireless Audio System, at residents of the State of California (and residents in
16 this District), (5) delivered its infringing Google Wireless Audio System into the stream of
17 commerce with the expectation that the Google Wireless Audio System will be used and/or
18 purchased by consumers, and (6) committed acts of patent infringement in the State of California
19 (and in this District).

20 72. This Court also has personal jurisdiction over Google because it is registered to do
21 business in the State of California and has one or more regular and established places of business
22 in this judicial district.

23 73. Venue is proper in this District under the provisions of 28 U.S.C. § 1400(b)
24 because, as noted above, Google has committed acts of infringement in this district and has one or
25 more regular and established places of business in this district.
26
27
28

THE PATENTS-IN-SUIT**U.S. Patent No. 9,967,615**

74. Sonos is the owner of U.S. Patent No. 9,967,615 (the “’615 Patent”), entitled “Networked Music Playback,” which was duly and legally issued by the United States Patent and Trademark Office (“USPTO”) on May 8, 2018. A copy of the ’615 Patent, is attached hereto as Exhibit A.

75. The ’615 Patent relates generally to technology for facilitating transfer of playback responsibility from a user’s device to a media playback system.

76. The ’615 Patent recognized that “[t]echnological advancements have increased the accessibility of music content, as well as other types of media....” ’615 Patent at 1:19-20. This allowed users to access audio and video content over the Internet. *Id.* at 1:21-26.

77. But, the ’615 Patent identified a particular problem and provided an unconventional technological solution. Specifically, the patent recognized that “[w]ired or wireless networks can be used to connect one or more multimedia playback devices for a home or other location playback network (*e.g.*, a home music system).” ’615 Patent at 1:66-2:2. This means that “[m]usic and/or other multimedia content can be shared among devices and/or groups of devices (also referred to herein as zones) associated with a playback network.” *Id.* at 2:6-9. The ’615 Patent is directed to a method, tangible media, and controller that “facilitate streaming or otherwise providing music from a music-playing application (*e.g.*, browser-based application, native music player, other multimedia application, and so on) to a multimedia content playback (*e.g.*, SonosTM) system.” *Id.* at 2:10-14.

78. The ’615 Patent provides an unconventional technological solution to this problem. For example, the ’615 Patent describes an “Example Controller” that “can be used to facilitate the control of multi-media applications....” ’615 Patent at 9:8-14. “In particular, the controller 500 is configured to facilitate a selection of a plurality of audio sources available on the network and enable control of one or more zone players ... through a wireless network interface 508.” *Id.* at 9:14-18. Further, the ’615 Patent describes embodiments that “enable a user to stream music from a music-playing application (*e.g.*, browser-based application, native music

1 player, other multimedia application and so on) to a local multimedia content playback (*e.g.*,
 2 Sonos™) system.” ’615 Patent at 12:8-12. More specifically, the ’615 Patent teaches that while
 3 “a user listens to a third party music application (*e.g.*, Pandora™ Rhapsody™, Spotify™, and so
 4 on)” on a user device, such as the user’s “smart phone,” the user can “select[] an option to
 5 continue playing [the current] channel on her household music playback system (*e.g.*, Sonos™),”
 6 which will cause the user’s “playback system” to “pick[] up from the same spot on the selected
 7 channel that was on her phone and output[] that content (*e.g.*, that song) on speakers and/or other
 8 playback devices connected to the household playback system.” *Id.* at 12:44-53; *see also id.* at
 9 13:1-53.

10 79. The ’615 Patent goes on to teach specific technology for facilitating this transfer of
 11 playback responsibility from the user’s device to the user’s playback system. For instance,
 12 the ’615 Patent teaches that one aspect of this technology involves causing data for retrieving
 13 network-based media content (such as a uniform resource locator (URI)) to be passed to a
 14 playback device in the playback system so that the playback device can “run on its own to fetch
 15 the content” from a networked audio source, such as a “cloud” server that is accessible over the
 16 Internet. *Id.* at 12:53-63; *see also id.* at 12:63-67 (describing that “[a] third party application can
 17 open or utilize an application programming interface (API) to pass music to the household
 18 playback system without tight coupling to that household playback system”); 15:47-16:19
 19 (describing a “throw it over the wall” approach in which “a third party application provides a
 20 multimedia playback device (*e.g.*, a Sonos™ zone player (ZP)) with enough information about
 21 content (*e.g.*, an audio track) so that . . . the local playback system (*e.g.*, SonosNet™) can directly
 22 access a source of the content and . . . play the content directly off the network (*e.g.*, the Internet)
 23 or cloud,” where the “connection between the third-party application and the local playback
 24 device (*e.g.*, Sonos ZonePlayer™) can be direct over a local area network (LAN)” or “remote
 25 through a proxy server in the cloud”); 16:53-17:4 (describing various embodiments for “queue
 26 management” associated with the transfer of playback from a control device to a playback
 27 system, including an embodiment where a “shared queue is provided between the local playback
 28 system and the third party application to keep the local system and the application

1 synchronized”). Further, the ’615 Patent teaches that another aspect of this technology involves
2 transitioning the user’s device into a mode in which it functions to control the playback of the
3 media content by the user’s playback system after the transfer. *Id.* at 16:20-42, 17:5-20. In this
4 way, the technology taught by the ’615 Patent provides for intuitive and seamless transfer of
5 playback responsibility from a user’s device to a media playback system.

6 80. In line with these teachings, the ’615 Patent claims devices, computer-readable
7 media, and methods for facilitating transfer of playback responsibility from a user’s device to a
8 media playback system.

9 81. For example, claim 13 of the ’615 Patent recites a non-transitory computer
10 readable storage medium including instructions for execution by a processor that, when executed,
11 cause a control device to perform various functions that facilitate transfer of playback
12 responsibility from the device to a media playback system. *See* ’615 Patent, claim 13. When the
13 instructions are executed, the control device is initially operable to (i) cause a graphical interface
14 to display a control interface including one or more transport controls to control playback by the
15 control device, (ii) identify playback devices connected to a local area network, (iii) cause the
16 graphical interface to display a selectable option for transferring playback from the control
17 device, and (iv) detect a set of inputs to transfer playback from the control device to a particular
18 playback device. *Id.* Additionally, the instructions configure the control device so that, after
19 detecting the set of inputs to transfer playback from the control device to the particular playback
20 device, the control device is operable to cause playback to be transferred from the control device
21 to the particular playback device by (a) causing one or more first cloud servers to add multimedia
22 content to a local playback queue on the particular playback device, wherein adding the
23 multimedia content to the local playback queue comprises the one or more first cloud servers
24 adding, to the local playback queue, one or more resource locators corresponding to respective
25 locations of the multimedia content at one or more second cloud servers of a streaming content
26 service, (b) causing playback at the control device to be stopped, and (c) modifying the one or
27 more transport controls of the control interface to control playback by the playback device. *Id.*
28 Additionally yet, the instructions configure the control device so that the control device is

1 operable to cause the particular playback device to play back the multimedia content, which
 2 involves the particular playback device retrieving the multimedia content from one or more
 3 second cloud servers of a streaming content service and playing back the retrieved multimedia
 4 content. *Id.*

5 **U.S. Patent No. 10,779,033**

6 82. Sonos is the owner of U.S. Patent No. 10,779,033 (the “’033 Patent”), entitled
 7 “Systems And Methods For Networked Music Playback,” which was duly and legally issued by
 8 the United States Patent and Trademark Office (“USPTO”) on September 15, 2020. A copy of
 9 the ’966 Patent, is attached hereto as Exhibit B.

10 83. The ’033 Patent is related to the ’615 Patent in that they are both continuations of
 11 application No. 13/341,237, filed on December 30, 2011, now U.S. Patent No. 9,654,821. Thus,
 12 the ’033 and ’615 Patents share essentially the same specification. Sonos incorporates by
 13 reference and re-alleges paragraphs 52-58 of this Amended Complaint as if fully set forth herein.

14 84. Like the ’615 Patent, the ’033 Patent claims devices, computer-readable media,
 15 and methods for facilitating transfer of playback responsibility from a user’s device to a media
 16 playback system, which provide an unconventional solution to the technological problem
 17 described in the ’615 Patent.

18 85. For example, claim 1 of the ’033 Patent recites a computing device with specific
 19 hardware configurations, including a non-transitory computer-readable medium that stores
 20 program instruction that can be executed by the device’s processor(s). *See* ’033 Patent, claim 1.
 21 When the instructions are executed, the computing device can initially operate in a first mode in
 22 which it is configured for playback of a remote playback queue provided by a cloud-based
 23 computing system associated with a cloud-based media service. *Id.* In that mode, the computing
 24 device is operable to (i) display a representation of one or more playback devices in a media
 25 playback system that are communicatively coupled to the computing device over a data network
 26 and available to accept playback responsibility for the remote playback queue, and (ii) while
 27 displaying the representation of the one or more playback devices, receive user input indicating a
 28 selection of at least one given playback device from the one or more playback devices. *Id.*

1 Additionally, the instructions configure the computing device so that, based on receiving the user
 2 input, the computing device is operable to transmit an instruction for the at least one given
 3 playback device to take over responsibility for playback of the remote playback queue from the
 4 computing device, wherein the instruction configures the at least one given playback device to
 5 (i) communicate with the cloud-based computing system in order to obtain data identifying a next
 6 one or more media items that are in the remote playback queue, (ii) use the obtained data to
 7 retrieve at least one media item in the remote playback queue from the cloud-based media
 8 service; and (iii) play back the retrieved at least one media item. *Id.* Additionally yet, the
 9 instructions configure the computing device so that the computing device is operable to detect an
 10 indication that playback responsibility for the remote playback queue has been successfully
 11 transferred from the computing device to the at least one given playback device, and then after
 12 detecting the indication, transition from (a) the first mode in which the computing device is
 13 configured for playback of the remote playback queue to (b) a second mode in which the
 14 computing device is configured to control the at least one given playback device's playback of the
 15 remote playback queue and the computing device is no longer configured for playback of the
 16 remote playback queue. *Id.*

17 **U.S. Patent No. 10,469,966**

18 86. Sonos is the owner of U.S. Patent No. 10,469,966 (the "'966 Patent"), entitled
 19 "Zone Scene Management," which was duly and legally issued by the United States Patent and
 20 Trademark Office ("USPTO") on November 5, 2019. A copy of the '966 Patent, is attached
 21 hereto as Exhibit C.

22 87. The '966 Patent relates generally to consumer electronics and human-computer
 23 interaction and, more specifically, to controlling or manipulating a plurality of multimedia players
 24 in a multi-zone system. *See, e.g.,* '966 Patent at 1:30-34.

25 88. The '966 Patent recognized that users demand not only quality audio reproduction
 26 but also a system that allows multiple players to access music from different sources. '966 Patent
 27 at 1:35-45. Before the '966 Patent, a conventional multi-zone audio system might include a
 28 number of audio sources, but each audio source had to be connected to its own amplifier and a set

1 of speakers and was typically installed in one place. *Id.* at 1:46-50. This had inherent limitations.
2 “In order to play an audio source at one location, the audio source must be provided locally or
3 from a centralized location. When the audio source is provided locally, the multi-zone audio
4 system functions as a collection of many stereo systems, making source sharing difficult. When
5 the audio source is provided centrally, the centralized location may include a juke box, many
6 compact discs, an AM or FM radio, tapes, or others. To send an audio source to an audio player
7 demanding such source, a cross-bar type of device is used to prevent the audio source from going
8 to other audio players that may be playing other audio sources.” *Id.* at 1:50-61.

9 89. Moreover, as the ’966 Patent recognized, “[i]n order to achieve playing different
10 audio sources in different audio players, the traditional multi-zone audio system is generally
11 either hard-wired or controlled by a pre-configured and pre-programmed controller.” ’966 Patent
12 at 1:62-65. Such a system created problems. “While the pre-programmed configuration may be
13 satisfactory in one situation, it may not be suitable for another situation. For example, a person
14 would like to listen to broadcast news from his/her favorite radio station in a bedroom, a
15 bathroom and a den while preparing to go to work in the morning. The same person may wish to
16 listen in the den and the living room to music from a compact disc in the evening. In order to
17 satisfy such requirements, two groups of audio players must be established. In the morning, the
18 audio players in the bedroom, the bathroom and the den need to be grouped for the broadcast
19 news. In the evening, the audio players in the den and the living room are grouped for the music.
20 Over the weekend, the audio players in the den, the living room, and a kitchen are grouped for
21 party music. Because the morning group, the evening group and the weekend group contain the
22 den, it can be difficult for the traditional system to accommodate the requirement of dynamically
23 managing the ad hoc creation and deletion of groups.” *Id.* at 1:65-2:17.

24 90. Thus, the ’966 Patent recognized “a need for dynamic control of the audio players
25 as a group” and a system in which “the audio players may be readily grouped.” ’966 Patent at
26 2:11-13. The invention of the ’966 Patent would, thus, overcome the problems “in a traditional
27 multi-zone audio system [where] the audio players have to be adjusted one at a time, resulting in
28 an inconvenient and non-homogenous audio environment.” *Id.* at 2:18-20.

1 91. The '966 Patent provided an unconventional solution to this technological
2 problem. “In general, the present invention pertains to controlling a plurality of multimedia
3 players, or simply players, in groups.” '966 Patent at 2:36-37. One specific aspect of the
4 grouping technology that is taught by the '966 Patent involves a controller with a user interface
5 that permits a user to configure and save a “zone scene,” which may comprise a “predefined”
6 grouping of zone players that can later be “activated” (or “invoked”) in order to group the zone
7 players in the “zone scene” together for synchronous playback. *Id.* at 2:38-61, 3:1-12, 8:42-
8 11:11. The '966 Patent explains that this “zone scene” technology for grouping zone players
9 together for synchronous playback provides improvements over the existing technology for
10 grouping zone players together for synchronous playback, which involved defining the group
11 membership at the time that the group was to be invoked – particularly in situations where a
12 larger number of zone players are to be grouped together for synchronous playback. *Id.* at 8:42-
13 9:15. For instance, the benefits highlighted by the '966 Patent include (i) allowing a group of
14 zone players to be “predefined” as part of a “zone scene” so that the group’s membership need
15 not be defined at the time that the group is to be invoked, (ii) allowing a predefined group to be
16 invoked without requiring the zone players in the group to be separated from other groups
17 beforehand, and (iii) allowing zone players to exist as part of multiple different predefined groups
18 that can be invoked in order to dynamically group the zone players for synchronous playback. *Id.*
19 at 8:42-11:11.

20 92. In line with these teachings, the '966 Patent claims devices, computer-readable
21 media, and methods for managing and using “zone scenes” to facilitate grouping of zone players,
22 which provides an unconventional solution to the technological problems related to grouping
23 zone players that are described in the '966 Patent.

24 93. For example, claim 1 of the '966 Patent describes a computing device with a
25 processor that can execute instructions stored in the computing device’s non-transitory, computer
26 readable medium. Those instructions, when executed, cause the computing device to be operable
27 to (i) receive a first request to create a first zone scene comprising a first predetermined grouping
28 of zone players that are to be configured for synchronous playback when the first zone scene is

invoked, and (ii) based on the first request, cause creation of the first zone scene, cause an indication of the first zone scene to be transmitted to a first zone player in the first zone scene, and cause storage of the first zone scene. *See, e.g.*, '966 Patent, claim 1. Additionally, the instructions, when executed, cause the computing device to be operable to (i) receive a second request to create a second zone scene comprising the first zone player and at least one other zone player that is not in the first zone scene, and (ii) based on the second request, cause creation of the second zone scene, cause an indication of the second zone scene to be transmitted to the first zone player, and cause storage of the second zone scene. *Id.* Additionally yet, the instructions, when executed, cause the computing device to be operable to (i) display representations of the first and second zone scenes, (ii) while displaying the representations, receive a third request to invoke the first zone scene, and (iii) based on the third request, cause the first zone player to transition from operating in a standalone mode to operating in accordance with the first predefined grouping of zone players so that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player. *Id.*

U.S. Patent No. 10,848,885

94. Sonos is the owner of U.S. Patent No. 10,848,885 (the “’885 Patent”), entitled “Zone Scene Management,” which was duly and legally issued by the United States Patent and Trademark Office (“USPTO”) on November 24, 2020. A copy of the ’885 Patent, is attached hereto as Exhibit D.

95. The ’885 Patent is related to the ’966 Patent in that they are both continuations of application No. 13/896,829, filed on May 17, 2013, now U.S. Patent No. 8,843,228. Thus, the ’885 and ’966 Patents share essentially the same specification. Sonos incorporates by reference and re-alleges paragraphs 87-91 of this Amended Complaint as if fully set forth herein.

96. The ’885 Patent claims devices, computer-readable media, and methods for managing and operating in accordance with different “zone scenes,” which provides an unconventional solution to the technological problems related to grouping zone players that are described in the ’885 Patent.

1 97. For example, claim 1 of the '885 Patent describes a first zone player with one or
 2 more processors that can execute instructions stored in the first zone player's non-transitory,
 3 computer-readable medium. Those instructions, when executed, cause the first zone player to be
 4 operable to, while operating in a standalone mode, (i) receive a first indication that the first zone
 5 player has been added to a first zone scene comprising a first predetermined grouping of zone
 6 players that are to be configured for synchronous playback when the first zone scene is invoked,
 7 and (ii) receive a second indication that the first zone player has been added to a second zone
 8 scene comprising the first zone player and at least one other zone player that is not in the first
 9 zone scene that are to be configured for synchronous playback when the second zone scene is
 10 invoked. *Id.* Additionally, the instructions, when executed, cause the first zone player to
 11 continue to operate in a standalone mode until one of the first and second zone scenes has been
 12 selected for invocation. *Id.* Additionally yet, the instructions, when executed, cause the first zone
 13 player to be operable to, (i) after one of the first or second zone scenes has been selected for
 14 invocation, receive an instruction to operate in accordance with the given first or second zone
 15 scene comprising a predefined grouping of zone player and (ii) based on the instruction, transition
 16 from operating in a standalone mode to operating in accordance with the predefined grouping of
 17 zone players so that the first zone player is configured to output media in synchrony with output
 18 of media by at least one other zone player in the predefined grouping. *Id.*

19 **CLAIM I: INFRINGEMENT OF U.S. PATENT NO. 9,967,615**

20 98. Sonos incorporates by reference and re-alleges paragraphs 1-97 of this Amended
 21 Complaint as if fully set forth herein.

22 99. Google and/or users of the Google Wireless Audio System have directly infringed
 23 (either literally or under the doctrine of equivalents) and continue to directly infringe one or more
 24 of the claims of the '615 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for
 25 sale, and/or selling the Google Wireless Audio System within the United States and/or importing
 26 the Google Wireless Audio System into the United States without authority or license.

27 100. In the course of this litigation, Sonos has served Google with infringement
 28 contentions detailing Google's infringement of the '615 Patent. *See* Ex. CH; Ex. CI. In

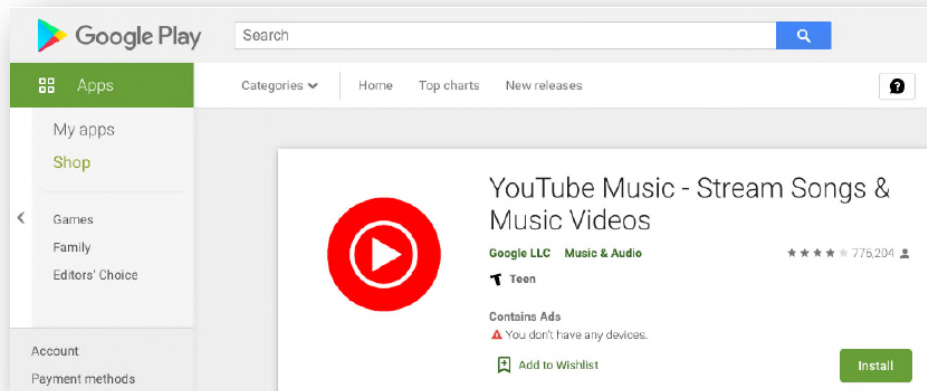
particular, as set forth in Sonos's infringement contentions for the '615 Patent, each of Google's YouTube, YouTube Music, YouTube TV, YouTube Kids, and Google Play Music software apps (referred to in paragraphs 99-133 as "Cast-enabled apps") includes a "Cast" feature, is installed on a computing device, and when so installed, programs and/or otherwise configures a computing device such that each limitation of at least one of the asserted claims of the '615 Patent is satisfied. Indeed, any use of the Cast feature results in the performance of each function recited in at least one asserted claim of the '615 Patent. As also set forth in Sonos's infringement contentions for the '615 Patent, each of Google's Cast-enabled displays (e.g., Nest/Home Hub and Nest Hub Max products) is also installed with software that includes the "Cast" feature, which further includes a "Stream Transfer" sub-feature, such that the Cast-enabled display is programmed and/or otherwise configured to satisfy each limitation of at least one of the asserted claims of the '615 Patent. For the avoidance of doubt, Sonos incorporates herein by reference under Rule 10(c) these infringement contentions for all purposes.

101. In addition to providing Google with a claim chart detailing Google's infringement of the '615 Patent on February 22, 2019, on September 28, 2020, Sonos provided Google with a draft of the original complaint prior to its filing. That draft identified the '615 Patent and described how Google's products infringed. Thus, Google had actual knowledge of Sonos's allegation that Google infringed claims of the '615 Patent prior to Sonos filing this action.

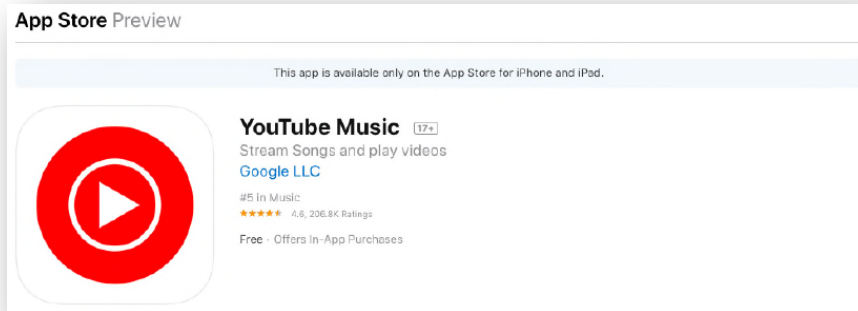
102. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the '615 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Google Wireless Audio System to directly infringe the one or more claims of the '615 Patent. In particular, (a) Google had actual knowledge of the '615 Patent or was willfully blind to its existence prior to, and no later than, February 2019 and had actual knowledge or was willfully blind to Sonos's infringement allegations at least as early as September 28, 2020 when Sonos provided Google a copy of the complaint (*see* ¶¶ 19-29, above), (b) Google intentionally causes, urges, or encourages users of the Google Wireless Audio System to directly infringe one or more claims of the '615 Patent by promoting, advertising, and instructing customers and potential customers about the Google Wireless Audio System

(including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement (*see* Exs. W-Z;), (c) Google has continued to intentionally cause, urge, or encourage users of the Google Wireless Audio System in such a manner both since becoming aware of the '615 Patent and since Sonos told Google that such conduct was inducing infringement on September 28, 2020, (d) Google knows (or should know) and has known (or should have known) that its actions will induce users of the Google Wireless Audio System to directly infringe one or more claims the '615 Patent, and (e) users of the Google Wireless Audio System directly infringe one or more claims of the '615 Patent.

103. For instance, at a minimum, Google has supplied and continues to supply (i) the YouTube, YouTube Music, YouTube TV, YouTube Kids, and Google Play Music software apps and (ii) software (e.g., firmware and/or Cast-enabled apps) for installation onto Cast-enabled displays to customers while knowing that installation and/or use of one or more of these software packages will infringe one or more claims of the '615 Patent and that Google's customers then directly infringe one or more claims of the '615 Patent by installing and/or using one or more of these software packages in accordance with Google's product literature. *See, e.g., id.* In other words, Google specifically intends to induce its customers to infringe the '615 Patent by intentionally encouraging and instructing its customers to install such software packages onto their computing devices. Example evidence of such conduct includes:



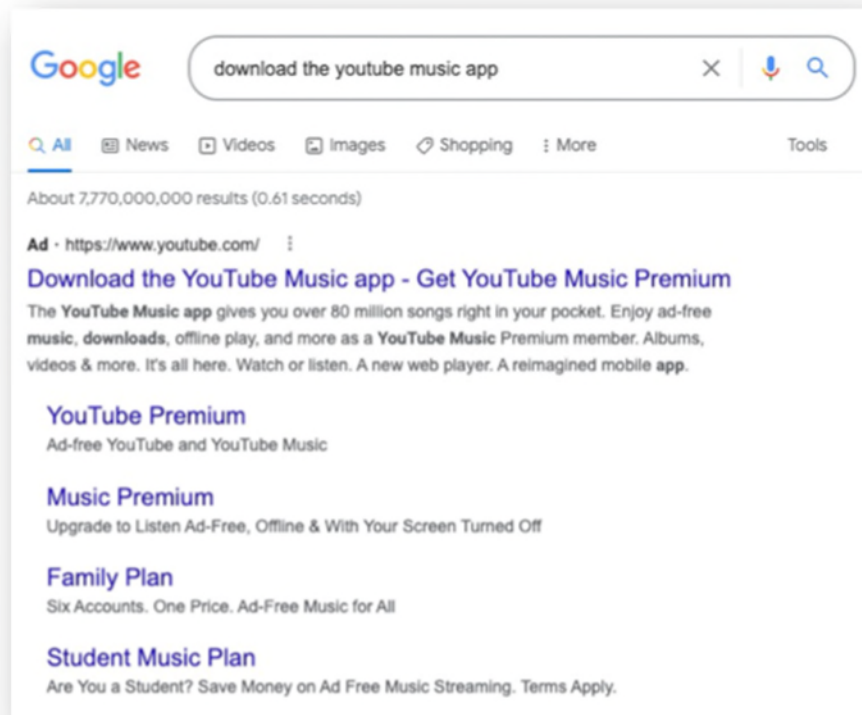
Ex. Y.



Ex. Z.



Ex. CM.



Ex. CS.

Locate firmware version & settings

Firmware is the software installed on Google Nest or Home speaker or display. When a firmware update is available, your device will automatically download the update via an Over-the-Air (OTA) update.

Your speaker or display must be set up and connected to the internet to receive the firmware update.

Ex. CN.

Updates to Google Nest or Home speakers and displays



To enjoy the latest and greatest features available on Google Nest or Home speaker or display, your device may need to be updated to the most recent software version. This is done automatically as part of setup so there's nothing you need to do to get the update.

Ex. CO.

104. Moreover, example evidence of Google encouraging and instructing its customers to use the accused Cast feature included in the Cast-enabled apps in an infringing manner includes:

Playing music on Google Nest or Google Home device is a simple way to enjoy your favorite audio apps optimized for your speaker. You can even use your mobile device or tablet as a remote and control everything from playback to volume.

Step 1. Cast from Chromecast-enabled apps to speaker or display

1. Make sure your mobile device or tablet is [connected to the same Wi-Fi network](#) or [linked to the same account](#) as your speaker or display.
2. Open a Chromecast-enabled app.
3. Tap the Cast button .
4. Tap the speaker or display you'd like to cast to.
5. When you're connected, the Cast button will turn from light to dark gray, letting you know you're connected.
6. You can now cast audio and video to your speaker or display from your device.
7. To stop casting, tap the Cast button  at the top of your device. Tap **Stop Casting** in the box that appears.

Ex. CP.

105. Further yet, example evidence of Google encouraging and instructing its customers to use the Stream Transfer feature in an infringing manner includes:

Move media from one cast device to another

Move music, podcasts, radio, and YouTube videos currently streaming from your Google Nest, Google Home, or Chromecast device to another Nest speaker, speaker group, display, or Chromecast-connected device.

From your Nest display



Google Nest Hub

1. On your Nest Hub's Home screen, tap the active media card to bring up the media player.
2. At the bottom left corner of the screen, tap Devices  to find the list of available devices and speaker groups.
3. Select the device(s) you want to move your media to.
4. Deselect the device(s) you want to move your media from.

Ex. CQ.

106. Google has continued to engage in the conduct described above by way of example since it became aware of the '615 Patent and since Sonos informed Google in Sonos's December 21, 2020 infringement contentions (and each subsequent instance of amended infringement contentions) that such conduct was inducing others to directly infringe the '615 Patent. Google chose not to cease its conduct despite this. Thus, Google has engaged in this conduct with the specific intent to infringe the '615 Patent because this conduct was expressly intended to encourage users to download and install the YouTube, YouTube Music, YouTube TV, YouTube Kids, and Google Play Music software apps and software (e.g., firmware and/or Cast-enabled apps) for installation onto Cast-enabled displays, as well as use computing devices installed with such software – the very actions that result in direct infringement of the '615 Patent.

107. Sonos has identified additional evidence of Google's inducing conduct in its infringement contentions and interrogatory responses, which Sonos incorporates herein by reference under Rule 10(c) for all purposes. *See* Exs. CH, CW.

108. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the '615 Patent, in violation of 35 U.S.C. § 271(c), by offering to sell or selling within the United States, and/or importing into the United States, components in connection with the Google Wireless Audio System that contribute to the

1 direct infringement of the '615 Patent by users of the Google Wireless Audio System. In
 2 particular, (a) Google had actual knowledge of the '615 Patent or was willfully blind to its
 3 existence prior to, and no later than, February 2019 and had actual knowledge or was willfully
 4 blind to Sonos's infringement allegations at least as early as September 28, 2020 when Sonos
 5 provided Google a copy of the complaint (*see* ¶¶ 17-30, 53-65, above), (b) Google offers for sale,
 6 sells, and/or imports, in connection with the Google Wireless Audio System, one or more material
 7 components of the invention of the '615 Patent that are not staple articles of commerce suitable
 8 for substantial non-infringing use, (c) Google knows (or should know) that such component(s)
 9 were especially made or especially adapted for use in an infringement of the '615 Patent, and
 10 (d) users of devices that comprise such material component(s) directly infringe one or more
 11 claims of the '615 Patent. For instance, at a minimum, Google offers for sale, sells, and/or
 12 imports (i) the YouTube, YouTube Music, YouTube TV, YouTube Kids, and Google Play Music
 13 software apps for installation on devices (*e.g.*, smartphones, tablets, and computers) and (ii)
 14 software (*e.g.*, firmware and/or Cast-enabled apps) for installation onto Cast-enabled displays that
 15 meet one or more claims of the '615 Patent. *See, e.g.*, Exs. W-Z, CN, CS. Each of these pieces
 16 of software is a material component of the devices that meet the one or more claims of the '615
 17 Patent. Further, Google especially made and/or adapted this software for installation and use on
 18 devices that meet the one or more claims of the '615 Patent, and each of these pieces of software
 19 is not a staple article of commerce suitable for substantial non-infringing use. Google's
 20 customers then directly infringe one or more claims of the '615 Patent by installing and/or using
 21 this software on the customers' devices.

22 109. More specifically, Google supplies software components, such as the YouTube,
 23 YouTube Music, YouTube TV, YouTube Kids, and Google Play Music software apps, that
 24 include the accused Cast feature as part of Google's own Cast-enabled apps for installation onto
 25 computing devices in the United States and as part of Google's own Cast-enabled software (*e.g.*,
 26 firmware and/or Cast-enabled apps) for installation onto Cast-enabled displays in the United
 27 States, and each time a user installs these software components, the user "makes" an infringing
 28

1 device and thereby directly infringes the asserted claims of the '615 Patent under 35 U.S.C. §
2 271(a).

3 110. These software components are material components of infringing devices, such as
4 computing devices provisioned with one or more Cast-enabled apps, and are not staple articles or
5 commodities of commerce suitable for substantial non-infringing use because the only possible
6 use for these software components is to be installed and run on infringing Cast-enabled
7 computing devices and/or Cast-enabled displays. In other words, there is no other reasonable,
8 suitable, or even conceivable use for these software components other than to be downloaded to
9 and installed on computing devices, such as mobile phones or tablet computers. Because the
10 asserted claims are directed to capability and not actual use or performance, actual execution of
11 software functionality is not required. Infringement occurs as soon as the software component is
12 downloaded to and/or installed on the computing device. Thus, the fact that the computing device
13 may be capable of carrying out non-infringing functionality (in addition to being capable of
14 carrying out the claimed functionality) does not negate infringement and is not a non-infringing
15 use because infringement has already occurred as a result of the download and/or installation of
16 the software component onto the computing device.

17 111. Along with its actual knowledge of the '615 Patent, Google knew (or should have
18 known) that the software components were especially made or adapted for installation on
19 infringing devices and that installation of these software components by others resulted in (and
20 continues to result in) direct infringement of the '615 Patent under 35 U.S.C. § 271(a) because
21 each such installation "makes" a device that meets every element of claims 13-15, 18-21, 23-26,
22 28-29 of the '615 Patent.

23 112. Additionally and/or alternatively, as discussed before, Google supplies software
24 component features, including the accused Cast feature as part of Google's own Cast-enabled
25 apps for installation onto computing devices and the accused Cast and Stream Transfer features as
26 part of Google's own Cast-enabled software for installation onto Cast-enabled displays, in the
27 United States via software downloads. These software component features are material
28 components of infringing devices and are not staple articles or commodities of commerce suitable

1 for substantial non-infringing use because the only possible use for these software component
2 features is to be operated on infringing Cast-enabled computing devices and/or Cast-enabled
3 displays. For example, at a minimum, the use of the accused Cast feature results in the
4 performance of each function recited in at least one asserted claim of the '615 Patent. Along with
5 its actual knowledge of the '615 Patent, Google knew (or should have known) that the software
6 component features were especially made or adapted to perform specific functions that are a
7 material part of the inventions of the '615 Patent and that use of these software component
8 features by others resulted in (and continues to result in) direct infringement of the '615 Patent
9 under 35 U.S.C. § 271(a).

10 113. Moreover, as a result of Google's contributory conduct, others have directly
11 infringed the asserted claims of the '615 Patent. For example, users have installed the supplied
12 software components for operating the accused Cast feature (which are included in Google's own
13 Cast-enabled apps) onto Cast-enabled computing devices in the United States, thereby "making"
14 infringing devices. As another example, users have installed the supplied software components
15 for operating the accused Cast feature (which are included in firmware, as well as Cast-enabled
16 apps) onto Cast-enabled displays in the United States, thereby "making" updated Cast-enabled
17 displays that are infringing devices. As yet another example, after installing the supplied
18 software components onto Cast-enabled computing devices and Cast-enabled displays, users have
19 used these infringing devices, including the use of the accused Cast and Stream Transfer features,
20 which also constitutes direct infringement.

21 114. Pursuant to 35 U.S.C. § 271(f)(1), Google has also infringed by supplying in or
22 from the United States software and/or firmware components, which constitute substantial
23 portions of the components of Sonos's patented inventions, and actively, knowingly, and
24 intentionally induced (and continues to actively, knowingly, and intentionally induce) others
25 outside of the United States to combine these software and/or firmware components in a manner
26 that, if such combination would have occurred in the United States (as it does pursuant to the
27 theories set forth above), infringes the asserted claims of the '615 Patent. And these
28 combinations by those outside of the United States do in fact occur. Accordingly, by supplying

1 such software and/or firmware components from the United States, Google is liable for
2 infringement under 35 U.S.C. § 271(f)(1).

3 115. Despite knowing of the '615 Patent, Google supplies software components for
4 performing the accused functionality as part of Google's own Cast-enabled apps (as well as the
5 other apps identified in Sonos's infringement contentions served in this case, *see* Exs. CH, CI) for
6 installation onto computing devices and also as part of Google's own cast-enabled software for
7 installation onto Cast-enabled displays. These software and/or firmware components are at least
8 substantial portions of the components of the patented inventions of the '615 Patent. Google
9 supplies these software and/or firmware components from the United States to various entities
10 outside the United States. Google then induces those entities to combine the supplied
11 components in a manner that would, if combined within the United States, constitute
12 infringement. Google has actively, knowingly, and intentionally induced (and continues to
13 actively, knowingly, and intentionally induce) these entities to make such combinations outside
14 the United States in various ways, in violation of 35 U.S.C. § 271(f)(1).

15 116. For example, through Google's website, advertising and promotional material,
16 user guides, and/or the Google Play Store, Google has actively, knowingly, and intentionally
17 encouraged and induced (and continues to actively, knowingly, and intentionally encourage and
18 induce) others outside the United States to install one or more of the Cast-enabled apps (including
19 YouTube Music, Google Play Music, and YouTube apps, as well as the other apps set forth in
20 Sonos's infringement contentions, Exs. CH, CI) onto computing devices outside of the United
21 States. If this combination were done within the United States, that act would constitute
22 "mak[ing]" an infringing device, which constitutes direct infringement of claims 13-15, 18-21,
23 23-26, 28-29 of the '615 Patent under 35 U.S.C. § 271(a). *See, e.g.,* Ex. CM
24 (<https://support.google.com/youtubemusic/answer/6313540?co=GENIE.Platform%3DDesktop&co=1>,
25 indicating that the YouTube Music app is available in dozens of countries other than the
26 United States).

27 117. As another example, through Google's website, advertising and promotional
28 material, user guides, and Cast-enabled apps, Google has actively, knowingly, and intentionally

1 encouraged and induced (and continues to actively, knowingly, and intentionally encourage and
2 induce) others outside the United States to install software (e.g., firmware updates and/or Cast-
3 enabled apps) onto Cast-enabled displays outside of the United States. If this combination were
4 done within the United States, that act would constitute “mak[ing]” an infringing device, which
5 constitutes direct infringement of claims 13-15, 18-21, 23-26, 28-29 of the ’615 Patent under 35
6 U.S.C. § 271(a).

7 118. As another example, through Google’s relationship with third-party manufacturers,
8 third-party distributors, or via an otherwise affiliated entity that acts in a manufacturer or
9 distributor role, Google actively, knowingly, and intentionally encourages and induces or
10 instructs such parties to install one or more of Cast-enabled apps (including YouTube Music,
11 Google Play Music, and YouTube apps) onto computing devices outside of the United States. If
12 this combination were done within the United States, that act would constitute “mak[ing]” an
13 infringing device, which constitutes direct infringement of claims 13-15, 18-21, 23-26, 28-29 of
14 the ’615 Patent under 35 U.S.C. § 271(a).

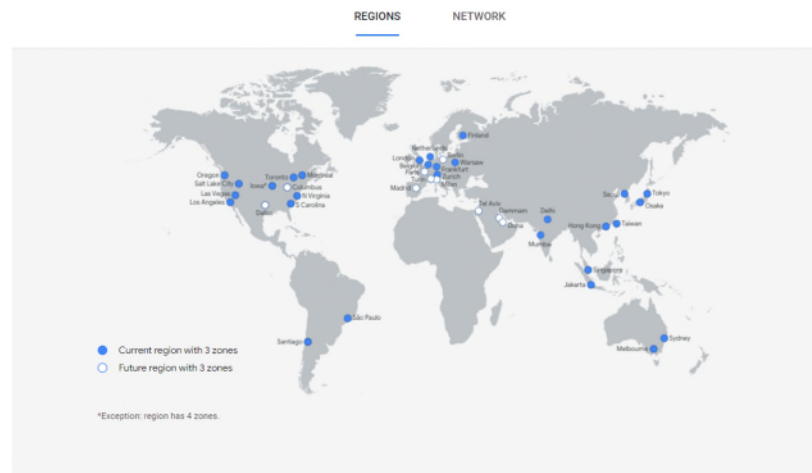
15 119. On information and belief, Google engages in the same conduct set out above
16 (with respect to Google’s infringement under § 271(b)) in foreign countries and with the intent to
17 encourage users in foreign countries to download and install Cast-enabled apps onto computing
18 devices.

19 120. As another example, through Google’s relationship with third-party manufacturers,
20 third-party distributors, or via an otherwise affiliated entity that acts in a manufacturer or
21 distributor role, Google actively, knowingly, and intentionally encourages and induces or
22 instructs such parties to install software (e.g., firmware updates and/or apps) onto Cast-enabled
23 displays outside of the United States. If this combination were done within the United States, that
24 act would constitute “mak[ing]” an infringing device, which constitutes direct infringement of
25 claims 13-15, 18-21, 23-26, 28-29 of the ’615 Patent under 35 U.S.C. § 271(a).

26 121. As still another example, through Google’s relationship with entities (including
27 affiliated entities) that operate servers outside of the United States that host Cast-enabled apps
28 (including YouTube Music, Google Play Music, and YouTube apps, as well as the other apps set

forth in Sonos's infringement contentions, Exs. CH, CI) for download onto computing devices and/or software (e.g., firmware and/or apps) for download onto Cast-enabled displays, Google actively, knowingly, and intentionally encourages and induces or instructs these entities to load, store, or otherwise provide the apps and/or software onto these servers. For instance, Google operates data centers and download servers in countless foreign countries and regions.

Meet our network



See Ex. CR (<https://cloud.google.com/about/locations#regions>). In at least these foreign countries and regions, users are able to download Cast-enabled apps onto computing devices. To facilitate this, Google has intentionally encouraged and induced or instructed other entities (including Google's affiliated entities) to upload software packages constituting the Cast-enabled apps onto download servers that are located in foreign countries. If this combination were done within the United States, that act would constitute direct infringement of certain asserted claims of the '615 Patent (e.g., claims 13-15, 18-21, and 23-24 of the '615 Patent) by "mak[ing]" and/or "us[ing]" servers that host such software in violation of 35 U.S.C. § 271(a). See also Ex. CH (Sonos's infringement contentions).

122. Pursuant to 35 U.S.C. § 271(f)(2), Google has also infringed by supplying software components in or from the United States to be combined, installed, loaded, and/or used by others outside of the United States, where these software components are components of the patented inventions that have no substantial non-infringing use and are not staple articles or

1 commodities of commerce – with knowledge that these software components were especially
2 made or adapted for use and an intent that these software components would be combined,
3 installed, loaded, and/or used outside the United States such that, if such combination,
4 installation, load, and/or use occurred within the United States (as it does pursuant to the theories
5 set forth above), it would infringe the asserted claims of the '615 Patent. And these combinations
6 by those outside of the United States do in fact occur. Accordingly, by supplying such software
7 components in or from the United States, Google is liable for infringement under 35 U.S.C. §
8 271(f)(2).

9 123. Despite knowing of the '615 Patent, Google supplies software components for
10 performing the accused Cast functionality as part of Google's Cast-enabled apps (e.g., the
11 YouTube Music, Google Play Music, and YouTube apps) for installation onto computing devices
12 outside the United States and also as part of Google's own software (e.g., firmware and/or Cast-
13 enabled apps) for installation onto Cast-enabled displays outside the United States. Google
14 intends that others outside the United States, including users, install these software components
15 onto computing devices and Cast-enabled displays and knows that such installation does in fact
16 occur and that such installation, if occurring in the United States, would constitute "mak[ing]" an
17 infringing device thereby directly infringing claims 13-15, 18-21, 23-26, 28-29 of the '615 Patent
18 under 35 U.S.C. § 271(a).

19 124. As another example, Google supplies software components for performing the
20 accused Cast functionality to third-party manufacturers, third-party distributors, or to an otherwise
21 affiliated entity that acts in a manufacturer or distributor role, who then, outside of the United
22 States installs these software components onto computing devices outside of the United States.
23 Google intends that these parties install these software components onto computing devices
24 outside of the United States. If this combination were done within the United States, that act
25 would constitute "mak[ing]" an infringing device, which constitutes direct infringement of claims
26 13-15, 18-21, 23-26, 28-29 of the '615 Patent under 35 U.S.C. § 271(a).

27 125. As another example, Google supplies software components for performing the
28 accused Cast functionality to entities (including affiliated entities) that operate servers outside of

1 the United States that host Cast-enabled apps for download onto Cast-enabled computing devices
 2 and/or Cast-enabled software (e.g., firmware and/or Cast-enabled apps) for download onto Cast-
 3 enabled displays. Google intends that these entities load, store, or otherwise provide the Cast-
 4 enabled apps and/or Cast-enabled software onto these servers. If this combination were done
 5 within the United States, that act would constitute direct infringement of certain asserted claims
 6 of the '615 Patent (e.g., claims 13-15, 18-21, and 23-24 of the '615 Patent) by “mak[ing]” and/or
 7 “us[ing]” servers that host such software in violation of 35 U.S.C. § 271(a).

8 126. Google knows the foregoing software components for performing the accused Cast
 9 functionality are material components of infringing devices and the patented inventions that are
 10 not staple articles or commodities of commerce suitable for substantial non-infringing use
 11 because the only possible use for these software components is to be loaded, installed, and/or run
 12 on infringing computing devices and Cast-enabled displays. *See also* Ex. CH (Sonos’s
 13 infringement contentions).

14 127. Google’s infringement of the '615 Patent is also willful because Google (a) had
 15 actual knowledge of the '615 Patent and Sonos’s infringement contentions concerning the '615
 16 Patent no later than February 2019, as well as additional and further notice of Sonos’s
 17 infringement contentions no later than September 28, 2020, (b) engaged in the aforementioned
 18 activity despite an objectively high likelihood that Google’s actions constituted infringement of
 19 the '615 Patent, and (c) this objectively-defined risk was either known or so obvious that it should
 20 have been known to Google. *See, e.g.*, ¶¶ 17-30, 53-65, above.

21 128. Given the five-year period over which Sonos put Google on consistent and
 22 repeated notice of Sonos’s patents and the breadth of Sonos’s patent portfolio concerning
 23 specifically the products accused in this case, detailed above, this knowledge establishes that
 24 Google was, for some time periods, at least willfully blind to the fact that the '615 Patent existed
 25 and, for other time periods, had actual knowledge of the '615 Patent. Further, this knowledge and
 26 repeated and persistent disclosure establishes that Google, for some time periods, had at least
 27 failed to investigate whether it infringed the '615 Patent despite the existence of a high risk of
 28

1 infringement and, for other time periods, had actual knowledge of a credible and specific
2 allegation of infringement of the '615 Patent.

3 129. Additional allegations regarding Google's pre-suit knowledge of the '615 Patent
4 and willful infringement will likely have evidentiary support after a reasonable opportunity for
5 discovery.

6 130. Sonos is entitled to recover from Google all damages that Sonos has sustained as a
7 result of Google's infringement of the '615 Patent, including, without limitation, a reasonable
8 royalty and lost profits. Sonos is in compliance with any applicable marking and/or notice
9 provisions of 35 U.S.C. § 287 with respect to the '615 Patent.

10 131. Google's infringement of the '615 Patent was and continues to be willful and
11 deliberate, entitling Sonos to enhanced damages.

12 132. Google's infringement of the '615 Patent is exceptional and entitles Sonos to
13 attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

14 133. Google's infringement of the '615 Patent has caused irreparable harm (including
15 the loss of market share) to Sonos and will continue to do so unless enjoined by this Court.

16 **CLAIM II: INFRINGEMENT OF U.S. PATENT NO. 10,779,033**

17 134. Sonos incorporates by reference and re-alleges paragraphs 1-133 of this Amended
18 Complaint as if fully set forth herein.

19 135. Google and/or users of the Google Wireless Audio System have directly infringed
20 (either literally or under the doctrine of equivalents) and continue to directly infringe one or more
21 of the claims of the '033 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for
22 sale, and/or selling the Google Wireless Audio System within the United States and/or importing
23 the Google Wireless Audio System into the United States without authority or license.

24 136. In the course of this litigation, Sonos has served Google with infringement
25 contentions detailing Google's infringement of the '033 Patent. *See* Ex. CH; Ex. CJ. In
26 particular, as set forth in Sonos's infringement contentions for the '033 Patent, each of Google's
27 YouTube, YouTube Music, YouTube TV, and YouTube Kids software apps (referred to in
28 paragraphs 136-167 as "Cast-enabled apps") includes a "Cast" feature, is installed on a

1 computing device, and when so installed, programs and/or otherwise configures a computing
2 device such that each limitation of at least one of the asserted claims of the '033 Patent is
3 satisfied. As also set forth in Sonos's infringement contentions for the '033 Patent, each of
4 Google's Cast-enabled displays is also installed with software that includes the "Cast" feature,
5 which further includes a "Stream Transfer" sub-feature, such that the Cast-enabled display is
6 programmed and/or otherwise configured to satisfy each limitation of at least one of the asserted
7 claims of the '033 Patent. For the avoidance of doubt, Sonos incorporates herein by reference
8 under Rule 10(c) these infringement contentions for all purposes.

9 137. On September 28, 2020, Sonos provided Google with a draft of the original
10 complaint prior to its filing. That draft identified the '033 Patent and described how Google's
11 products infringed. Thus, Google had actual knowledge of Sonos's allegation that Google
12 infringed claims of the '033 Patent prior to Sonos filing this action.

13 138. Additionally and/or alternatively, Google has indirectly infringed and continues to
14 indirectly infringe one or more of the claims of the '033 Patent, in violation of 35 U.S.C.
15 § 271(b), by actively inducing users of the Google Wireless Audio System to directly infringe the
16 one or more claims of the '033 Patent. In particular, (a) Google had actual knowledge of the '033
17 Patent and Sonos's infringement contentions, or was willfully blind to their existence, no later
18 than September 28, 2020 when Sonos provided Google with a copy of the complaint (*see* ¶¶ 17-
19 30, 53-65, above), (b) Google intentionally causes, urges, or encourages users of the Google
20 Wireless Audio System to directly infringe one or more claims of the '033 Patent by promoting,
21 advertising, and instructing customers and potential customers about the Google Wireless Audio
22 System (including uses thereof) and encouraging such customers and potential customers to
23 engage in activity that constitutes direct infringement (*see* Exs. W-Z), (c) Google has continued to
24 intentionally cause, urge, or encourage users of the Google Wireless Audio System in such a
25 manner both since becoming aware of the '033 Patent and since Sonos told Google that such
26 conduct was inducing infringement on September 28, 2020, (d) Google knows (or should know)
27 and has known (or should have known) that its actions will induce users of the Google Wireless
28

1 Audio System to directly infringe one or more claims the '033 Patent, and (e) users of the Google
2 Wireless Audio System directly infringe one or more claims of the '033 Patent.

3 139. For instance, at a minimum, Google has supplied and continues to supply (i) the
4 YouTube, YouTube Music, YouTube TV, and YouTube Kids software apps and (ii) software
5 (e.g., firmware and/or Cast-enabled apps) for installation onto Cast-enabled displays to customers
6 while knowing that installation and/or use of one or more of these pieces of software will infringe
7 one or more claims of the '033 Patent and that Google's customers then directly infringe one or
8 more claims of the '033 Patent by installing and/or using one or more of these pieces of software
9 in accordance with Google's product literature. *See, e.g., id.* In other words, Google specifically
10 intends to induce its customers to infringe the '033 Patent by intentionally encouraging and
11 instructing its customers to install such software/pieces of software onto their computing devices.

12 140. Example evidence of Google intentionally encouraging and instructing its
13 customers to infringe the '033 Patent can be found at paragraphs 103-107.

14 141. Google has continued to engage in the conduct described above by way of
15 example since it became aware of the '033 Patent and since Sonos informed Google in Sonos's
16 December 21, 2020 infringement contentions (and each subsequent instance of amended
17 infringement contentions) that such conduct was inducing others to directly infringe the '033
18 Patent. Google chose not to cease its conduct despite this. Thus, Google has engaged in this
19 conduct with the specific intent to infringe the '033 Patent because this conduct was expressly
20 intended to encourage users to download and install the YouTube, YouTube Music, YouTube
21 TV, and YouTube Kids software apps and software (e.g., firmware and/or Cast-enabled apps) for
22 installation onto Cast-enabled displays, as well as use computing devices installed with such
23 software – the very actions that result in direct infringement of the '033 Patent.

24 142. Additionally and/or alternatively, Google has indirectly infringed and continues to
25 indirectly infringe one or more of the claims of the '033 Patent, in violation of 35 U.S.C.
26 § 271(c), by offering to sell or selling within the United States, and/or importing into the United
27 States, components in connection with the Google Wireless Audio System that contribute to the
28 direct infringement of the '033 Patent by users of the Google Wireless Audio System. In

1 particular, (a) Google had actual knowledge of the '033 Patent and Sonos's infringement
 2 contentions, or was willfully blind to their existence, no later than September 28, 2020 when
 3 Sonos provided Google with a copy of the complaint (*see* ¶¶ 17-30, 53-65, above), (b) Google
 4 offers for sale, sells, and/or imports, in connection with the Google Wireless Audio System, one
 5 or more material components of the invention of the '033 Patent that are not staple articles of
 6 commerce suitable for substantial non-infringing use, (c) Google knows (or should know) that
 7 such component(s) were especially made or especially adapted for use in an infringement of
 8 the '033 Patent, and (d) users of devices that comprise such material component(s) directly
 9 infringe one or more claims of the '033 Patent. For instance, at a minimum, Google offers for
 10 sale, sells, and/or imports (i) the YouTube, YouTube Music, YouTube TV, and YouTube Kids
 11 software apps for installation on devices (*e.g.*, smartphones, tablets, and computers) and (ii)
 12 software (*e.g.*, firmware and/or Cast-enabled apps) for installation onto Cast-enabled displays that
 13 meet one or more claims of the '033 Patent. *See, e.g.*, Exs. W-Z. Each of these pieces of
 14 software is a material component of the devices that meet the one or more claims of the '033
 15 Patent. Further, Google especially made and/or adapted this software for installation and use on
 16 devices that meet the one or more claims of the '033 Patent, and each of these pieces of software
 17 is not a staple article of commerce suitable for substantial non-infringing use. Google's
 18 customers then directly infringe the one or more claims of the '033 Patent by installing and/or
 19 using this software on the customers' devices.

20 143. More specifically, Google supplies software components, such as the YouTube,
 21 YouTube Music, YouTube TV, and YouTube Kids software apps, that include the accused Cast
 22 feature as part of Google's own Cast-enabled apps for installation onto computing devices in the
 23 United States and as part of Google's own Cast-enabled software (*e.g.*, firmware and/or Cast-
 24 enabled apps) for installation onto Cast-enabled displays in the United States, and each time a
 25 user installs these software components, the user "makes" an infringing device and thereby
 26 directly infringes the asserted claims of the '033 Patent under 35 U.S.C. § 271(a).

27 144. These software components are material components of infringing devices, such as
 28 computing devices provisioned with one or more Cast-enabled apps, and are not staple articles or

1 commodities of commerce suitable for substantial non-infringing use because the only possible
2 use for these software components is to be installed and run on infringing Cast-enabled
3 computing devices and Cast-enabled displays. In other words, there is no other reasonable,
4 suitable, or even conceivable use for these software components other than to be downloaded to
5 and installed on computing devices, such as mobile phones or tablet computers. Because the
6 asserted claims are directed to capability and not actual use or performance, actual execution of
7 software functionality is not required. Infringement occurs as soon as the software component is
8 downloaded to and/or installed on the computing device. Thus, the fact that the computing device
9 may be capable of carrying out non-infringing functionality (in addition to being capable of
10 carrying out the claimed functionality) does not negate infringement and is not a non-infringing
11 use because infringement has already occurred as a result of the download and/or installation of
12 the software component onto the computing device.

13 145. Along with its actual knowledge of the '033 Patent, Google knew (or should have
14 known) that the software components were especially made or adapted for installation on
15 infringing devices and that installation of these software components by others resulted in (and
16 continues to result in) direct infringement of the '033 Patent under 35 U.S.C. § 271(a) because
17 each such installation “makes” a device that meets every element of claims 1-2, 4, 7-13 of
18 the '033 Patent.

19 146. Additionally and/or alternatively, as discussed before, Google supplies software
20 component features, including the accused Cast feature as part of Google’s own Cast-enabled
21 apps for installation onto computing devices and the accused Cast and Stream Transfer features as
22 part of Google’s own Cast-enabled software for installation onto Cast-enabled displays, in the
23 United States via software downloads. These software component features are material
24 components of infringing devices and are not staple articles or commodities of commerce suitable
25 for substantial non-infringing use because the only possible use for these software component
26 features is to be operated on infringing Cast-enabled computing devices and/or Cast-enabled
27 displays. Along with its actual knowledge of the '033 Patent, Google knew (or should have
28 known) that the software component features were especially made or adapted to perform specific

1 functions that are a material part of the inventions of the '033 Patent and that use of these
2 software component features by others involved (and continues to involve) a direct infringement
3 of the '033 Patent under 35 U.S.C. § 271(a).

4 147. Moreover, as a result of Google's contributory conduct, others have directly
5 infringed the asserted claims of the '033 Patent. For example, users have installed the supplied
6 software components for operating the accused Cast feature (which are included in Google's own
7 Cast-enabled apps) onto Cast-enabled computing devices in the United States, thereby "making"
8 infringing devices. As another example, users have installed the supplied software components
9 for operating the accused Cast feature (which are included in firmware, as well as Cast-enabled
10 apps) onto Cast-enabled displays in the United States, thereby "making" updated Cast-enabled
11 displays that are infringing devices. As yet another example, after installing the supplied
12 software components onto Cast-enabled computing devices and Cast-enabled displays, users have
13 used these infringing devices, including the use of the accused Cast and Stream Transfer features,
14 which also constitutes direct infringement.

15 148. Pursuant to 35 U.S.C. § 271(f)(1), Google has also infringed by supplying in or
16 from the United States software and/or firmware components, which constitute substantial
17 portions of the components of Sonos's patented inventions, and actively, knowingly, and
18 intentionally induced (and continues to actively, knowingly, and intentionally induce) others
19 outside of the United States to combine these software and/or firmware components in a manner
20 that, if such combination would have occurred in the United States (as it does pursuant to the
21 theories set forth above), infringes the asserted claims of the '033 Patent. And these
22 combinations by those outside of the United States do in fact occur. Accordingly, by supplying
23 such software and/or firmware components from the United States, Google is liable for
24 infringement under 35 U.S.C. § 271(f)(1).

25 149. Despite knowing of the '033 Patent, Google supplies software components for
26 performing the accused functionality as part of Google's own YouTube, YouTube Music,
27 YouTube TV, and YouTube Kids apps (as well as the other apps identified in Google's
28 infringement contentions served in this case, *see* Exs. CH, CJ) for installation onto computing

1 devices and also as part of Google’s own cast-enabled software for installation onto Cast-enabled
 2 displays. These software and/or firmware components are at least substantial portions of the
 3 components of the patented inventions of the ’033 Patent. Google supplies these software and/or
 4 firmware components from the United States to various entities outside the United States. Google
 5 then induces those entities to combine the supplied components in a manner that would, if
 6 combined within the United States, constitute infringement. Google has actively, knowingly, and
 7 intentionally induced (and continues to actively, knowingly, and intentionally induce) these
 8 entities to make such combinations outside the United States in various ways, in violation of 35
 9 U.S.C. § 271(f)(1).

10 150. For example, through Google’s website, advertising and promotional material,
 11 user guides, and/or the Google Play Store, Google has actively, knowingly, and intentionally
 12 encouraged and induced (and continues to actively, knowingly, and intentionally encourage and
 13 induce) others outside the United States to install one or more of the Cast-enabled apps (including
 14 YouTube, YouTube Music, YouTube TV, and YouTube Kids apps) onto computing devices
 15 outside of the United States. If this combination were done within the United States, that act
 16 would constitute “mak[ing]” an infringing device, which constitutes direct infringement of claims
 17 1-2, 4, 7-13 of the ’033 Patent under 35 U.S.C. § 271(a). *See, e.g.,* Ex. CM
 18 (<https://support.google.com/youtubemusic/answer/6313540?co=GENIE.Platform%3DDesktop&co=1>), indicating that the YouTube Music app is available in dozens of countries other than the
 19 United States).
 20

21 151. As another example, through Google’s website, advertising and promotional
 22 material, user guides, and Cast-enabled apps, Google has actively, knowingly, and intentionally
 23 encouraged and induced (and continues to actively, knowingly, and intentionally encourage and
 24 induce) others outside the United States to install software (e.g., firmware updates and/or Cast-
 25 enabled apps) onto Cast-enabled displays outside of the United States. If this combination were
 26 done within the United States, that act would constitute “mak[ing]” an infringing device, which
 27 constitutes direct infringement of claims 1-2, 4, 7-13 of the ’033 Patent under 35 U.S.C. § 271(a).
 28

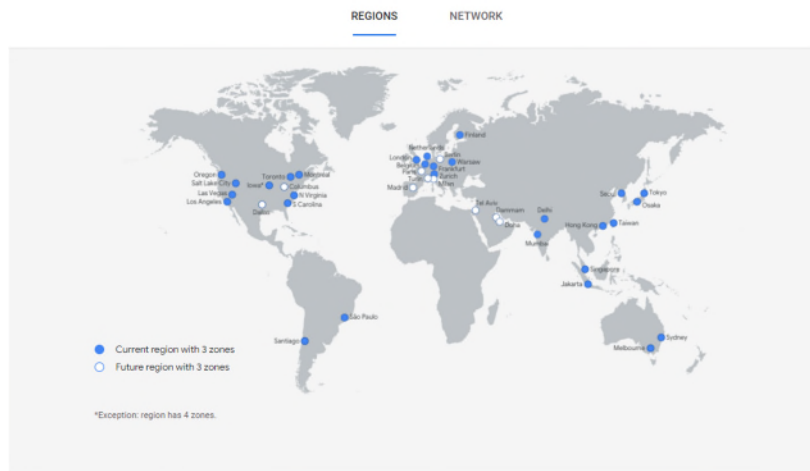
1 152. As another example, through Google’s relationship with third-party manufacturers,
2 third-party distributors, or via an otherwise affiliated entity that acts in a manufacturer or
3 distributor role, Google actively, knowingly, and intentionally encourages and induces or
4 instructs such parties to install one or more of the accused apps (including YouTube, YouTube
5 Music, YouTube TV, and YouTube Kids apps, as well as the other apps set forth in Sonos’s
6 infringement contentions, Exs. CH, CJ) onto computing devices outside of the United States. If
7 this combination were done within the United States, that act would constitute “mak[ing]” an
8 infringing device, which constitutes direct infringement of claims 1-2, 4, 7-13 of the ’033 Patent
9 under 35 U.S.C. § 271(a).

10 153. On information and belief, Google engages in the same conduct set out above
11 (with respect to Google’s infringement under § 271(b)) in foreign countries and with the intent to
12 encourage users in foreign countries to download and install the accused apps onto computing
13 devices.

14 154. As another example, through Google’s relationship with third-party manufacturers,
15 third-party distributors, or via an otherwise affiliated entity that acts in a manufacturer or
16 distributor role, Google actively, knowingly, and intentionally encourages and induces or
17 instructs such parties to install software (e.g., firmware updates and/or apps) onto the Cast-
18 enabled displays outside of the United States. If this combination were done within the United
19 States, that act would constitute “mak[ing]” an infringing device, which constitutes direct
20 infringement of claims 1-2, 4, 7-13 of the ’033 Patent under 35 U.S.C. § 271(a).

21 155. As still another example, through Google’s relationship with entities (including
22 affiliated entities) that operate servers outside of the United States that host Cast-enabled apps
23 (e.g., Google’s own YouTube, YouTube Music, YouTube TV, and YouTube Kids apps) for
24 download onto computing devices and/or software (e.g., firmware and/or apps) for download onto
25 Cast-enabled displays, Google actively, knowingly, and intentionally encourages and induces or
26 instructs these entities to load, store, or otherwise provide the apps and/or software onto these
27 servers. For instance, Google operates data centers and download servers in countless foreign
28 countries and regions.

Meet our network



See Ex. CR (<https://cloud.google.com/about/locations#regions>). In at least these foreign countries and regions, users are able to download the Cast-enabled apps onto computing devices. To facilitate this, Google has intentionally encouraged and induced or instructed other entities (including Google's affiliated entities) to upload software packages constituting the Cast-enabled apps onto download servers that are located in foreign countries. If this combination were done within the United States, that act would constitute direct infringement of certain asserted claims of the '033 Patent (e.g., claims 12-13 of the '033 Patent) by "mak[ing]" and/or "us[ing]" servers that host such software in violation of 35 U.S.C. § 271(a). See also Ex. CH (Sonos's infringement contentions).

156. Pursuant to 35 U.S.C. § 271(f)(2), Google has also infringed by supplying software components in or from the United States to be combined, installed, loaded, and/or used by others outside of the United States, where these software components are components of the patented inventions that have no substantial non-infringing use and are not staple articles or commodities of commerce – with knowledge that these software components were especially made or adapted for use and an intent that these software components would be combined, installed, loaded, and/or used outside the United States such that, if such combination, installation, load, and/or use occurred within the United States (as it does pursuant to the theories set forth above), it would infringe the asserted claims of the '033 Patent. And these combinations

1 by those outside of the United States do in fact occur. Accordingly, by supplying such software
2 components in or from the United States, Google is liable for infringement under 35 U.S.C. §
3 271(f)(2).

4 157. Despite knowing of the '033 Patent, Google supplies software components for
5 performing the accused Cast functionality as part of Google's Cast-enabled apps (including
6 YouTube, YouTube Music, YouTube TV, and YouTube Kids apps, as well as the other apps set
7 forth in Sonos's infringement contentions, Exs. CH, CJ) for installation onto computing devices
8 outside the United States and also as part of Google's own software (e.g., firmware and/or Cast-
9 enabled apps) for installation onto Cast-enabled displays outside the United States. Google
10 intends that others outside the United States, including users, install these software components
11 onto computing devices and Cast-enabled displays and knows that such installation does in fact
12 occur and that such installation, if occurring in the United States, would constitute "mak[ing]" an
13 infringing device thereby directly infringing claims 1-2, 4, 7-13 of the '033 Patent under 35
14 U.S.C. § 271(a).

15 158. As another example, Google supplies software components for performing the
16 accused Cast functionality to third-party manufacturers, third-party distributors, or to an otherwise
17 affiliated entity that acts in a manufacturer or distributor role, who then, outside of the United
18 States installs these software components onto computing devices outside of the United States.
19 Google intends that these parties install these software components onto computing devices
20 outside of the United States. If this combination were done within the United States, that act
21 would constitute "mak[ing]" an infringing device, which constitutes direct infringement of claims
22 1-2, 4, 7-13 of the '033 Patent under 35 U.S.C. § 271(a).

23 159. As another example, Google supplies software components for performing the
24 accused Cast functionality to entities (including affiliated entities) that operate servers outside of
25 the United States that host apps for download onto computing devices and/or Cast-enabled
26 software (e.g., firmware and/or apps) for download onto Cast-enabled displays. Google intends
27 that these entities load, store, or otherwise provide the apps and/or accused software onto these
28 servers. If this combination were done within the United States, that act would constitute direct

1 infringement of certain asserted claims of the '033 Patent (e.g., claims 12-13 of the '033 Patent)
2 by “mak[ing]” and/or “us[ing]” servers that host such software in violation of 35 U.S.C. § 271(a).

3 160. Google knows the foregoing software components for performing the accused Cast
4 functionality are material components of infringing devices and the patented inventions that are
5 not staple articles or commodities of commerce suitable for substantial non-infringing use
6 because the only possible use for these software components is to be loaded, installed, and/or run
7 on infringing Cast-enabled computing devices and Cast-enabled displays.

8 161. Google’s infringement of the '033 Patent is also willful because Google (a) had
9 actual knowledge of the '033 Patent and Sonos’s infringement contentions no later than
10 September 28, 2020, (b) engaged in the aforementioned activity despite an objectively high
11 likelihood that Google’s actions constituted infringement of the '033 Patent, and (c) this
12 objectively-defined risk was either known or so obvious that it should have been known to
13 Google. *See, e.g.*, ¶¶ 17-30, 53-65, above.

14 162. Given the five-year period over which Sonos put Google on consistent and
15 repeated notice of Sonos’s patents and the breadth of Sonos’s patent portfolio concerning
16 specifically the products accused in this case, detailed above, this knowledge establishes that
17 Google was, for some time periods, at least willfully blind to the fact that the '033 Patent existed
18 and, for other time periods, had actual knowledge of the '033 Patent. Further, this knowledge and
19 repeated and persistent disclosure establishes that Google, for some time periods, had at least
20 failed to investigate whether it infringed the '033 Patent despite the existence of a high risk of
21 infringement and, for other time periods, had actual knowledge of a credible and specific
22 allegation of infringement of the '033 Patent.

23 163. Additional allegations regarding Google’s pre-suit knowledge of the '033 Patent
24 and willful infringement will likely have evidentiary support after a reasonable opportunity for
25 discovery.

26 164. Sonos is entitled to recover from Google all damages that Sonos has sustained as a
27 result of Google’s infringement of the '033 Patent, including, without limitation, a reasonable
28

royalty and lost profits. Sonos is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '033 Patent.

165. Google's infringement of the '033 Patent was and continues to be willful and deliberate, entitling Sonos to enhanced damages.

166. Google's infringement of the '033 Patent is exceptional and entitles Sonos to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

167. Google's infringement of the '033 Patent has caused irreparable harm (including the loss of market share) to Sonos and will continue to do so unless enjoined by this Court.

CLAIM III: INFRINGEMENT OF U.S. PATENT NO. 10,469,966

168. Sonos incorporates by reference and re-alleges paragraphs 1-167 of this Amended Complaint as if fully set forth herein.

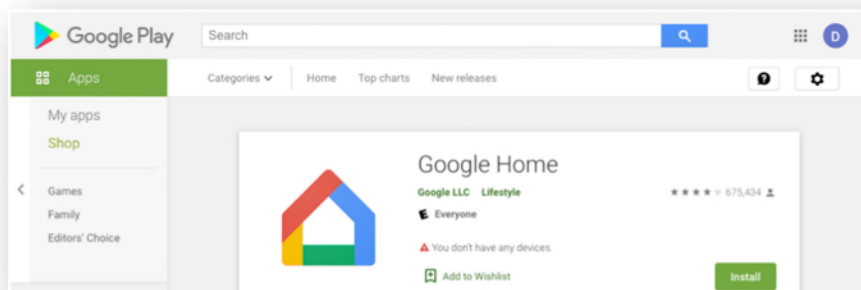
169. Google and/or users of the Google Wireless Audio System have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe one or more of the claims of the '966 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling the Google Wireless Audio System within the United States and/or importing the Google Wireless Audio System into the United States without authority or license.

170. In the course of this litigation, Sonos has served Google with infringement contentions detailing Google's infringement of the '966 Patent. *See* Ex. CH; Ex. CK. In particular, as set forth in Sonos's infringement contentions for the '966 Patent, Google's Google Home app includes a "speaker group" feature, is installed on a computing device, and when so installed, programs and/or otherwise configures a computing device such that each limitation of at least one of the asserted claims of the '966 Patent is satisfied. For the avoidance of doubt, Sonos incorporates herein by reference under Rule 10(c) these infringement contentions for all purposes.

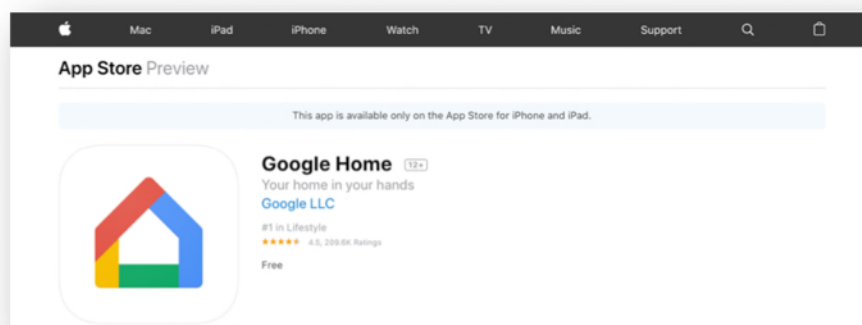
171. On September 28, 2020, Sonos provided Google with a draft of the original complaint prior to its filing. That draft identified the '966 Patent and described how Google's products infringed. Thus, Google had actual knowledge of Sonos's allegation that Google infringed claims of the '966 Patent prior to Sonos filing this action.

172. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the '966 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Google Wireless Audio System to directly infringe the one or more claims of the '966 Patent. In particular, (a) Google had actual knowledge of the '966 Patent and Sonos's infringement contentions, or was willfully blind to their existence, no later than September 28, 2020 when Sonos provided Google with a copy of the complaint (*see* ¶¶ 17-30, 53-65, above), (b) Google intentionally causes, urges, or encourages users of the Google Wireless Audio System to directly infringe one or more claims of the '966 Patent by promoting, advertising, and instructing customers and potential customers about the Google Wireless Audio System (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement (*see* Exs. U-V), (c) Google has continued to intentionally cause, urge, or encourage users of the Google Wireless Audio System in such a manner both since becoming aware of the '966 Patent and since Sonos told Google that such conduct was inducing infringement on September 28, 2020, (d) Google knows (or should know) and has known (or should have known) that its actions will induce users of the Google Wireless Audio System to directly infringe one or more claims the '966 Patent, and (e) users of the Google Wireless Audio System directly infringe one or more claims of the '966 Patent.

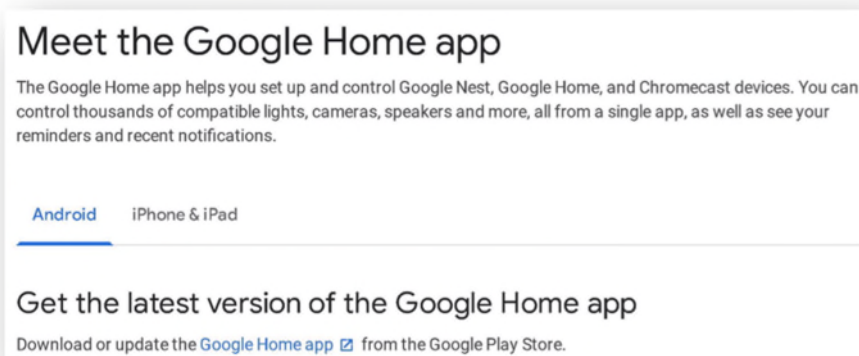
173. For instance, at a minimum, Google has supplied and continues to supply the Google Home app to customers while knowing that installation and/or use of this app will infringe one or more claims of the '966 Patent and that Google's customers then directly infringe one or more claims of the '966 Patent by installing and/or using this app in accordance with Google's product literature. *See, e.g., id.* In other words, Google specifically intends to induce its customers to infringe the '966 Patent by intentionally encouraging and instructing its customers to install such software/pieces of software onto their computing devices. Example evidence of such conduct includes:



Ex. U.



Ex. V.



Ex. CT.

174. Moreover, example evidence of Google encouraging and instructing its customers to use the accused speaker-group feature included in the Google Home app in an infringing manner includes:

Step 1. Create and manage speaker groups

Create an audio group

1. Make sure all audio devices and your mobile or tablet are connected to the same Wi-Fi network.
2. Open the Google Home app.
3. At the top left, tap Add + > Create speaker group.
4. Tap each device you want to add to the group. A check ✓ will appear next to each device you select.
5. Tap Next > Enter a name for your group > Save.

Step 2. Control speaker groups

From the Google Home app

1. Make sure your mobile device or tablet is connected to the same Wi-Fi as your speaker or display.
2. Open the Google Home app.
3. Tap your speaker group.

You'll see the following information for the current music session:

- Content provider
- Title (song name / show episode name / radio station program)
- Artist (if available)
- Collection (playlist / album / show series / radio station) (if available)

You can also pause/resume, stop, and control group members volume.

Ex. P.

175. Google has continued to engage in the conduct described above by way of example since it became aware of the '966 Patent and since Sonos informed Google in Sonos's December 21, 2020 infringement contentions (and each subsequent instance of amended infringement contentions) that such conduct was inducing others to directly infringe the '966

1 Patent. Google chose not to cease its conduct despite this. Thus, Google has engaged in this
2 conduct with the specific intent to infringe the '966 Patent because this conduct was expressly
3 intended to encourage users to download and install the Google Home app onto computing
4 devices, as well as use computing devices installed with the Google Home app – the very actions
5 that result in direct infringement of the '966 Patent.

6 176. Sonos has identified additional evidence of Google's inducing conduct in its
7 infringement contentions and interrogatory responses, which Sonos incorporates herein by
8 reference under Rule 10(c) for all purposes. *See* Exs. CH, CW.

9 177. Additionally and/or alternatively, Google has indirectly infringed and continues to
10 indirectly infringe one or more of the claims of the '966 Patent, in violation of 35 U.S.C.
11 § 271(c), by offering to sell or selling within the United States, and/or importing into the United
12 States, components in connection with the Google Wireless Audio System that contribute to the
13 direct infringement of the '966 Patent by users of the Google Wireless Audio System. In
14 particular, (a) Google had actual knowledge of the '966 Patent and Sonos's infringement
15 contentions, or was willfully blind to their existence, no later than September 28, 2020 when
16 Sonos provided Google with a copy of the complaint (*see* ¶¶ 17-30, 53-65, *sabove*), (b) Google
17 offers for sale, sells, and/or imports, in connection with the Google Wireless Audio System, one
18 or more material components of the invention of the '966 Patent that are not staple articles of
19 commerce suitable for substantial non-infringing use, (c) Google knows (or should know) that
20 such component(s) were especially made or especially adapted for use in an infringement of
21 the '966 Patent, and (d) users of devices that comprise such material component(s) directly
22 infringe one or more claims of the '966 Patent.

23 178. For instance, at a minimum, Google offers for sale, sells, and/or imports the
24 Google Home app for installation on devices (*e.g.*, smartphones, tablets, and computers) that meet
25 one or more claims of the '966 Patent. *See, e.g.*, Exs. U-V. This app is a material component of
26 the devices that meet the one or more claims of the '966 Patent. Further, Google especially made
27 and/or adapted this app for installation and use on devices that meet the one or more claims of
28 the '966 Patent, and this app is not a staple article of commerce suitable for substantial non-

1 infringing use. Google's customers then directly infringe the one or more claims of the '966
2 Patent by installing and/or using the Google Home app on the customers' devices.

3 179. More specifically Google supplies a software component, the Google Home app,
4 that includes the accused speaker-group feature as part of the Google Home app in the United
5 States, and each time a user installs the Google Home app onto a computing device, the user
6 "makes" an infringing device and thereby directly infringes the asserted claims of the '966 Patent
7 under 35 U.S.C. § 271(a). The software component is a material component of infringing devices
8 and is not a staple article or commodity of commerce suitable for substantial non-infringing use
9 because the only possible use for these software components is to be installed and run on
10 infringing computing devices. In other words, there is no other reasonable, suitable, or even
11 conceivable use for these software components other than to be downloaded to and installed on
12 computing devices, such as mobile phones or tablet computers. Because the asserted claims are
13 directed to capability and not actual use or performance, actual execution of software
14 functionality is not required. Infringement occurs as soon as the software component is
15 downloaded to and/or installed on the computing device. Thus, the fact that the computing device
16 may be capable of carrying out non-infringing functionality (in addition to being capable of
17 carrying out the claimed functionality) does not negate infringement and is not a non-infringing
18 use because infringement has already occurred as a result of the download and/or installation of
19 the software component onto the computing device.

20 180. Along with its actual knowledge of the '966 Patent, Google knew (or should have
21 known) that the software component was especially made or adapted for installation on infringing
22 devices and that installation of this software component by others resulted in (and continues to
23 result in) direct infringement of the '966 Patent under 35 U.S.C. § 271(a) because each such
24 installation "makes" a device that meets every element of claims 1-4, 6-12, 14-16 of the '966
25 Patent.

26 181. Additionally and/or alternatively, as discussed before, Google supplies a software
27 component feature (i.e., the accused speaker-group feature as part of the Google Home app for
28 installation onto computing devices) in the United States via software downloads. This software

1 component feature is a material component of infringing devices and is not a staple article or
2 commodity of commerce suitable for substantial non-infringing use because the only possible use
3 for this software component feature is to be operated on infringing Cast-enabled computing
4 devices. Along with its actual knowledge of the '966 Patent, Google knew (or should have
5 known) that the software component feature was especially made or adapted to perform specific
6 functions that are a material part of the inventions of the '966 Patent and that use of this software
7 component feature by others involved (and continues to involve) a direct infringement of the '966
8 Patent under 35 U.S.C. § 271(a).

9 182. Moreover, as a result of Google's contributory conduct, others have directly
10 infringed the asserted claims of the '966 Patent. For example, users have installed the supplied
11 software components included as part of the Google Home app onto computing devices in the
12 United States, thereby "making" infringing computing devices. As another example, after
13 installing the supplied software components included as part of the Google Home app onto
14 computing devices, users have used these infringing devices, including the use of the accused
15 speaker-group feature, which also constitutes direct infringement of the asserted claims.

16 183. Pursuant to 35 U.S.C. § 271(f)(1), Google has also infringed by supplying in or
17 from the United States software and/or firmware components, which constitute substantial
18 portions of the components of Sonos's patented inventions, and actively, knowingly, and
19 intentionally induced (and continues to actively, knowingly, and intentionally induce) others
20 outside of the United States to combine these software and/or firmware components in a manner
21 that, if such combination would have occurred in the United States (as it does pursuant to the
22 theories set forth above), infringes the asserted claims of the '966 Patent. And these
23 combinations by those outside of the United States do in fact occur. Accordingly, by supplying
24 such software and/or firmware components from the United States, Google is liable for
25 infringement under 35 U.S.C. § 271(f)(1).

26 184. Despite knowing of the '966 Patent, Google supplies the Google Home app from
27 the United States to various entities outside the United States. Google then induces those entities
28 to combine the Google Home app in a manner that would, if combined within the United States,

1 constitute infringement. Google has actively, knowingly, and intentionally induced (and
2 continues to actively, knowingly, and intentionally induce) these entities to make such
3 combinations outside the United States in various ways, in violation of 35 U.S.C. § 271(b).

4 185. For example, through Google’s website, advertising and promotional material,
5 user guides, and/or the Google Play Store, and via audible or visual instructions emitted from or
6 displayed on the Cast-enabled media players and Cast-enabled displays, Google has actively,
7 knowingly, and intentionally encouraged and induced (and continues to actively, knowingly, and
8 intentionally encourage and induce) others outside the United States to install the Google Home
9 app onto computing devices outside the United States. If this combination were done within the
10 United States, that act would constitute “mak[ing]” an infringing device, which constitutes direct
11 infringement of claims 1-4, 6-12, 14-16 of the ’966 Patent under 35 U.S.C. § 271(a). *See, e.g.*,
12 Ex. CU (<https://support.google.com/store/answer/2462844?hl=en>, indicating the countries in
13 which Google’s media players can be purchased and operated and thus, the countries in which
14 Google encourages its users to download and install the Google Home app).

15 186. As another example, through Google’s relationship with entities (including
16 affiliated entities) that operate servers outside of the United States that host the Google Home app
17 for download onto smartphone, tablet, and computer devices, Google actively, knowingly, and
18 intentionally encourages and induces or instructs these entities to load, store, or otherwise provide
19 the Google Home app onto these servers. For instance, Google operates data centers and
20 download servers in countless foreign countries and regions.

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Meet our network



See Ex. CR (<https://cloud.google.com/about/locations#regions>). In at least these foreign countries and regions, users are able to download the Google Home app onto computing devices. To facilitate this, Google has intentionally encouraged and induced or instructed other entities (including Google's affiliated entities) to upload software packages constituting the Google Home app onto download servers that are located in foreign countries. If this combination were done within the United States, that act would constitute direct infringement of certain asserted claims of the '966 Patent (e.g., claims 9-12 and 14-16) by "mak[ing]" and/or "us[ing]" servers that host such software in violation of 35 U.S.C. § 271(a).

187. On information and belief, Google engages in the same conduct set out above (with respect to Google's infringement under § 271(b)) in foreign countries and with the intent to encourage users in foreign countries to download and install the Google Home app onto computing devices.

188. Pursuant to 35 U.S.C. § 271(f)(2), Google has also infringed by supplying software components in or from the United States to be combined, installed, loaded, and/or used by others outside of the United States, where these software components are components of the patented inventions that have no substantial non-infringing use and are not staple articles or commodities of commerce – with knowledge that these software components were especially made or adapted for use and an intent that these software components would be combined,

1 installed, loaded, and/or used outside the United States such that, if such combination,
2 installation, load, and/or use occurred within the United States (as it does pursuant to the theories
3 set forth above), it would infringe the asserted claims of the Asserted Patents. And these
4 combinations by those outside of the United States do in fact occur. Accordingly, by supplying
5 such software components in or from the United States, Google is liable for infringement under
6 35 U.S.C. § 271(f)(2).

7 189. Despite knowing of the '966 Patent, Google supplies software components for
8 performing the accused functionality as part of the Google Home app in or from the United States
9 to various entities outside the United States. Google knows and intends for those entities to
10 combine the software components in a manner that would, if combined within the United States,
11 constitute infringement because each combination or installation of the Google Home app onto a
12 computing device would constitute "mak[ing]" an infringing device and thus directly infringe
13 claims 1-4, 6-12, 14-16 of the '966 Patent under 35 U.S.C. § 271(a).

14 190. Google knows that the software components included in the Google Home app are
15 material components of infringing devices that are not staple articles or commodities of
16 commerce suitable for substantial non-infringing use because the only possible use for these
17 software components is to be installed and run on infringing computing devices.

18 191. Along with its actual knowledge of the '966 Patent, Google knew (or should have
19 known) that the software components included in the Google Home app were especially made or
20 adapted for installation on infringing devices, and that installation of these software components
21 by others outside of the United States would, if done within the United States, constitute (and
22 continues to result in) direct infringement of the '966 Patent under 35 U.S.C. § 271(a) because
23 each such installation "makes" a device that meets every element of every asserted claims.

24 192. Moreover, as a result of Google providing software components of the Google
25 Home app, others have outside of the United States combined the Google Home app in a manner
26 that, if done within the United States, would constitute direct infringement of the asserted claims
27 of the '966 Patent. For example, others outside the United States have installed the Google Home
28 app onto computing devices outside the United States. If this combination were done within the

1 United States, that act would constitute “mak[ing]” an infringing device, which constitutes direct
 2 infringement of claims 1-4, 6-12, 14-16 of the ’966 Patent under 35 U.S.C. § 271(a).

3 193. As another example, Google supplies software components of the Google Home
 4 app to entities (including affiliated entities) that operate servers outside of the United States that
 5 host the Google Home app for download onto smartphone, tablet, and computer devices. Google
 6 intends that these entities load, store, or otherwise provide the Google Home app onto these
 7 servers. If this combination were done within the United States, that act would constitute direct
 8 infringement of certain asserted claims of the ’966 Patent (e.g., claims 9-12 and 14-16) by
 9 “mak[ing]” and/or “us[ing]” servers that host such software in violation of 35 U.S.C. § 271(a).
 10 *See also* Ex. CH (Sonos’s infringement contentions).

11 194. Google’s infringement of the ’966 Patent is also willful because Google (a) had
 12 actual knowledge of the ’966 Patent and actual knowledge of Sonos’s infringement contentions
 13 no later than September 28, 2020, (b) engaged in the aforementioned activity despite an
 14 objectively high likelihood that Google’s actions constituted infringement of the ’966 Patent, and
 15 (c) this objectively-defined risk was either known or so obvious that it should have been known to
 16 Google. *See, e.g.*, ¶¶ 17-30, 53-65, above.

17 195. Given the five-year period over which Sonos put Google on consistent and
 18 repeated notice of Sonos’s patents and the breadth of Sonos’s patent portfolio concerning
 19 specifically the products accused in this case, detailed above, this knowledge establishes that
 20 Google was, for some time periods, at least willfully blind to the fact that the ’966 Patent existed
 21 and, for other time periods, had actual knowledge of the ’966 Patent. Further, this knowledge and
 22 repeated and persistent disclosure establishes that Google, for some time periods, had at least
 23 failed to investigate whether it infringed the ’966 Patent despite the existence of a high risk of
 24 infringement and, for other time periods, had actual knowledge of a credible and specific
 25 allegation of infringement of the ’966 Patent.

26 196. Additional allegations regarding Google’s pre-suit knowledge of the ’966 Patent
 27 and willful infringement will likely have evidentiary support after a reasonable opportunity for
 28 discovery.

197. Sonos is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '966 Patent.

198. Sonos is entitled to recover from Google all damages that Sonos has sustained as a result of Google's infringement of the '966 Patent, including, without limitation, a reasonable royalty and lost profits.

199. Google's infringement of the '966 Patent was and continues to be willful and deliberate, entitling Sonos to enhanced damages.

200. Google's infringement of the '966 Patent is exceptional and entitles Sonos to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

201. Google's infringement of the '966 Patent has caused irreparable harm (including the loss of market share) to Sonos and will continue to do so unless enjoined by this Court.

CLAIM IV: INFRINGEMENT OF U.S. PATENT NO. 10,848,885

202. Sonos incorporates by reference and re-alleges paragraphs 1-201 of this Amended Complaint as if fully set forth herein.

203. Google and/or users of the Google Wireless Audio System have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe one or more of the claims of the '885 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling the Google Wireless Audio System within the United States and/or importing the Google Wireless Audio System into the United States without authority or license.

204. In the course of this litigation, Sonos has served Google with infringement contentions detailing Google's infringement of the '885 Patent. *See* Ex. CH; Ex. CL. In particular, as set forth in Sonos's infringement contentions for the '885 Patent, Google's Cast-enabled media players are provisioned with software enabling a "speaker group" feature such that each limitation of at least one of the asserted claims of the '885 Patent is satisfied. For the avoidance of doubt, Sonos incorporates herein by reference under Rule 10(c) these infringement contentions for all purposes.

205. On January 8, 2021, Sonos provided Google with a draft of Sonos's First Amended Complaint prior to its filing. That draft identified the '885 Patent and described how

1 Google's products infringed. Thus, Google had actual knowledge of Sonos's allegation that
 2 Google infringed claims of the '885 Patent prior to Sonos filing the amended complaint in this
 3 action.

4 206. Additionally and/or alternatively, Google has indirectly infringed and continues to
 5 indirectly infringe one or more of the claims of the '885 Patent, in violation of 35 U.S.C.
 6 § 271(b), by actively inducing users of the Google Wireless Audio System to directly infringe the
 7 one or more claims of the '885 Patent. In particular, (a) Google had actual knowledge of the '885
 8 Patent and Sonos's infringement contentions, or was willfully blind to their existence, no later
 9 than January 8, 2021 when Sonos provided Google with a copy of the First Amended Complaint,
 10 (b) Google intentionally causes, urges, or encourages users of the Google Wireless Audio System
 11 to directly infringe one or more claims of the '885 Patent by promoting, advertising, and
 12 instructing customers and potential customers about the Google Wireless Audio System
 13 (including uses thereof) and encouraging such customers and potential customers to engage in
 14 activity that constitutes direct infringement (*see* Exs. U-V), (c) Google has continued to
 15 intentionally cause, urge, or encourage users of the Google Wireless Audio System in such a
 16 manner both since becoming aware of the '885 Patent and since Sonos told Google that this
 17 conduct was inducing infringement on February 17, 2021, (d) Google knows (or should know)
 18 and has known (or should have known) that its actions will induce users of the Google Wireless
 19 Audio System to directly infringe one or more claims the '885 Patent, and (e) users of the Google
 20 Wireless Audio System directly infringe one or more claims of the '885 Patent.

21 207. For example, at a minimum, Google has supplied and continues to supply the
 22 Cast-enabled media players to customers while knowing that use of these products will infringe
 23 one or more claims of the '885 Patent and that Google's customers then directly infringe one or
 24 more claims of the '885 Patent by using the Cast-enabled media players in accordance with
 25 Google's product literature. *See, e.g., id.* In other words, Google specifically intends to induce
 26 its customers to infringe the '885 Patent by intentionally encouraging and instructing its customers
 27 to use the Cast-enabled media players, including the use of the accused speaker-group feature,
 28

1 which constitutes direct infringement. Example evidence of such conduct can be found at
2 paragraph 174.

3 208. As another example, at a minimum, Google has supplied and continues to supply
4 software (e.g., firmware updates) for installation onto Cast-enabled media players to customers
5 while knowing that installation of this software will infringe one or more claims of the '885
6 Patent and that Google's customers then directly infringe one or more claims of the '885 Patent
7 by installing the software. In other words, Google specifically intends to induce its customers to
8 infringe the '885 Patent by intentionally encouraging and instructing its customers to install such
9 software onto their Cast-enabled media players. When users install such software, including
10 firmware updates, these users make an infringing device pursuant to § 271(a) and thus commit
11 direct infringement of the '855 Patent. Example evidence of such conduct includes:

12 Locate firmware version & settings

13 Firmware is the software installed on Google Nest or Home speaker or display. When a firmware update is
14 available, your device will automatically download the update via an Over-the-Air (OTA) update.

15 Your speaker or display must be set up and connected to the internet to receive the firmware update.

16
17 Ex. CN.

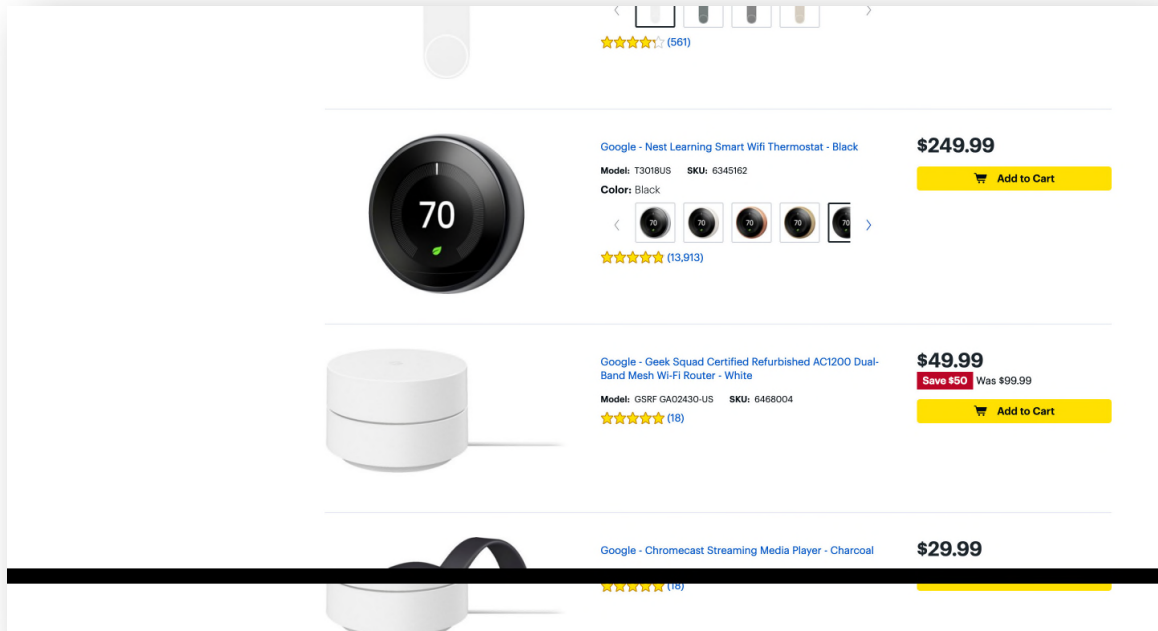
18 Updates to Google Nest or Home speakers and 19 displays

20 To enjoy the latest and greatest features available on Google Nest or Home speaker or display, your device
21 may need to be updated to the most recent software version. This is done automatically as part of setup so
22 there's nothing you need to do to get the update.

23 Ex. CO.

24 209. As yet another example, at a minimum, Google has supplied and continues to
25 supply the Cast-enabled media players to distributors (e.g., Best Buy, Walmart, etc.) that then sell
26 or offer to sell the Cast-enabled media players while knowing that selling and offering to sell the
27 Cast-enabled media players infringes one or more claims of the '885 Patent and that Google's
28 distributors then directly infringe one or more claims of the '885 Patent by selling and offering to

1 sell the Cast-enabled media players . In other words, Google specifically intends to induce its
 2 distributors to infringe the '885 Patent by intentionally encouraging and instructing its
 3 distributors to sell or offer to sell Cast-enabled media players. Example evidence of such conduct
 4 includes:



17 Ex. CV.

18 210. Google has continued to engage in the conduct described above by way of
 19 example since it became aware of the '885 Patent and since Sonos informed Google in Sonos's
 20 February 17, 2021 infringement contentions (and each subsequent instance of amended
 21 infringement contentions) that such conduct was inducing others to directly infringe the '885
 22 Patent. Google chose not to cease its conduct despite this. Thus, Google has engaged in this
 23 conduct with the specific intent to infringe the '885 Patent because this conduct was expressly
 24 intended to encourage users to use the Cast-enabled media players, users to install firmware
 25 updates onto Cast-enabled media players thus constituting making an infringing device, and
 26 distributors to sell and offer to sell Cast-enabled media players – the very actions that result in
 27 direct infringement of the '885 Patent.
 28

211. Additionally and/or alternatively, Google has indirectly infringed and continues to indirectly infringe one or more of the claims of the '885 Patent, in violation of 35 U.S.C. § 271(c), by offering to sell or selling within the United States, and/or importing into the United States, components in connection with the Google Wireless Audio System that contribute to the direct infringement of the '885 Patent by users of the Google Wireless Audio System. In particular, (a) Google had actual knowledge of the '885 Patent and Sonos's infringement contentions, or was willfully blind to their existence, no later than January 8, 2021 when Sonos provided Google with a copy of the First Amended Complaint, (b) Google offers for sale, sells, and/or imports, in connection with the Google Wireless Audio System, one or more material components of the invention of the '885 Patent that are not staple articles of commerce suitable for substantial non-infringing use, (c) Google knows (or should know) that such component(s) were especially made or especially adapted for use in an infringement of the '885 Patent, and (d) users of devices that comprise such material component(s) directly infringe one or more claims of the '885 Patent. For instance, at a minimum, Google offers for sale, sells, and/or imports software updates for the Chromecast-enabled media players that meet one or more claims of the '885 Patent. *See, e.g.*, Ex. AO. These software updates are material components of the Chromecast-enabled media players that meet the one or more claims of the '885 Patent. Further, Google especially made and/or adapted these software updates for installation and use on the Chromecast-enabled media players that meet the one or more claims of the '885 Patent, and these software updates are not staple articles of commerce suitable for substantial non-infringing use. Google's customers then directly infringe the one or more claims of the '885 Patent by installing and using software updates on the Chromecast-enabled media players.

212. More specifically, Google supplies software components, such as firmware updates, that include the accused speaker-group feature as part of software updates for Cast-enabled media players in the United States, and each time a user installs such a firmware update, the user "makes" an infringing device and thereby directly infringes claims 1-3, 5-10, 12-14 of the '885 Patent under 35 U.S.C. § 271(a). The software components included in the firmware updates are material components of Cast-enabled media players that are not staple articles or

1 commodities of commerce suitable for substantial non-infringing use because the only possible
2 use for these software components is to be installed and run on infringing Cast-enabled media
3 players. In other words, there is no other reasonable, suitable, or even conceivable use for these
4 software components other than to be downloaded to and installed on Cast-enabled media
5 players. Because the asserted claims are directed to capability and not actual use or performance,
6 actual execution of software functionality is not required. Infringement occurs as soon as the
7 software component is downloaded to and/or installed on the Cast-enabled media player. Thus,
8 the fact that the Cast-enabled media player may be capable of carrying out non-infringing
9 functionality (in addition to being capable of carrying out the claimed functionality) does not
10 negate infringement and is not a non-infringing use because infringement has already occurred as
11 a result of the download and/or installation of the software component onto the Cast-enabled
12 media player.

13 213. Along with its actual knowledge of the '885 Patent, Google knew (or should have
14 known) that the software components included in the firmware updates were especially made or
15 adapted for installation on infringing Cast-enabled media players and that installation of these
16 software components by others resulted in (and continues to result in) direct infringement of
17 the '885 Patent under 35 U.S.C. § 271(a) because each such installation “makes” an updated
18 Cast-enabled media player that meets every element claims 1-3, 5-10, 12-14 of the '885 Patent.

19 214. Additionally and/or alternatively, as discussed before, Google supplies a software
20 component feature (i.e., the accused speaker-group feature as part of the Cast-enabled media
21 player's firmware) in the United States via software downloads. This software component feature
22 is a material component of infringing devices and is not a staple article or commodity of
23 commerce suitable for substantial non-infringing use because the only possible use for this
24 software component feature is to be operated on infringing Cast-enabled media players. Along
25 with its actual knowledge of the '885 Patent, Google knew (or should have known) that the
26 software component feature was especially made or adapted to perform specific functions that are
27 a material part of the inventions of the '885 Patent and that use of this software component
28

1 feature by others involved (and continues to involve) a direct infringement of the '885 Patent
2 under 35 U.S.C. § 271(a).

3 215. Moreover, as a result of Google's contributory conduct, others have directly
4 infringed the asserted claims of the '885 Patent. For example, users have installed the supplied
5 software components included as part of the firmware updates onto Cast-enabled media players in
6 the United States, thereby "making" updated Cast-enabled media players, which constitutes direct
7 infringement. As another example, after installing the software components included as part of
8 the firmware updates onto Cast-enabled media players, users have used Cast-enabled media
9 players, including the use of the accused speaker-group feature, which also constitutes direct
10 infringement of the asserted claims.

11 216. Pursuant to 35 U.S.C. § 271(f)(1), Google has also infringed by supplying in or
12 from the United States software and/or firmware components, which constitute substantial
13 portions of the components of Sonos's patented inventions, and actively, knowingly, and
14 intentionally induced (and continues to actively, knowingly, and intentionally induce) others
15 outside of the United States to combine these software and/or firmware components in a manner
16 that, if such combination would have occurred in the United States (as it does pursuant to the
17 theories set forth above), infringes the asserted claims of the '885 Patent. And these
18 combinations by those outside of the United States do in fact occur. Accordingly, by supplying
19 such software and/or firmware components from the United States, Google is liable for
20 infringement under 35 U.S.C. § 271(f)(1).

21 217. Despite knowing of the '885 Patent, Google supplies from the United States
22 software components for performing the accused functionality as part of firmware updates for
23 accused media players. Google then through Google's website, advertising and promotional
24 material, user guides, the Google Home app (among other apps offered by Google), and/or the
25 Google Play Store, Google has actively, knowingly, and intentionally encouraged and induced
26 (and continues to actively, knowingly, and intentionally encourage and induce) others outside the
27 United States to install firmware updates onto accused media players outside the United States. If
28 this combination were done within the United States, that act would constitute "mak[ing]" or

1 “us[ing]” an infringing device, which constitutes direct infringement of the asserted claims of the
2 ‘885 Patent under 35 U.S.C. § 271(a). *See, e.g.*, Ex. CU
3 (<https://support.google.com/store/answer/2462844?hl=en>, indicating the countries in which
4 Google’s media players can be purchased and operated and thus, the countries in which Google
5 encourages its users to install firmware updates to the media players).

6 218. As another example, through Google’s relationship with third-party manufacturers,
7 third-party distributors, or via an otherwise affiliated entity that acts in a manufacturer or
8 distributor role, Google actively, knowingly, and intentionally encourages and induces or
9 instructs such parties to, outside of the United States, install or load firmware onto Cast-enabled
10 media players. If this combination were done within the United States, that act would constitute
11 “mak[ing]” an infringing device, which constitutes direct infringement of claims 1-3, 5-10, 12-14
12 of the ‘885 Patent under 35 U.S.C. § 271(a).

13 219. On information and belief, Google engages in the same conduct set out above
14 (with respect to Google’s infringement under § 271(b)) in foreign countries and with the intent to
15 encourage users in foreign countries to download and install firmware updates onto Cast-enabled
16 media players in those countries.

17 220. Pursuant to 35 U.S.C. § 271(f)(2), Google has also infringed by supplying
18 software components in or from the United States to be combined, installed, loaded, and/or used
19 by others outside of the United States, where these software components are components of the
20 patented inventions that have no substantial non-infringing use and are not staple articles or
21 commodities of commerce – with knowledge that these software components were especially
22 made or adapted for use and an intent that these software components would be combined,
23 installed, loaded, and/or used outside the United States such that, if such combination,
24 installation, load, and/or use occurred within the United States (as it does pursuant to the theories
25 set forth above), it would infringe the asserted claims of the ‘885 Patent. And these combinations
26 by those outside of the United States do in fact occur. Accordingly, by supplying such software
27 components in or from the United States, Google is liable for infringement under 35 U.S.C. §
28 271(f)(2).

1 221. Despite knowing of the '885 Patent, Google supplies in or from the United States
2 software components for performing the accused functionality as part of firmware updates for
3 accused media players, and users install such a firmware update outside of the United States in a
4 manner that, if done within the United States, would constitute “mak[ing]” an infringing device
5 and thereby directly infringe claims 1-3, 5-10, 12-14 of the '885 Patent under 35 U.S.C. § 271(a).
6 The software components included in the firmware updates are material components of the
7 patented invention that are not staple articles or commodities of commerce suitable for substantial
8 non-infringing use because the only possible use for these software components is to be installed
9 and run on accused media players, which constitute infringing devices.

10 222. Along with its actual knowledge of the '885 Patent, Google knew (or should have
11 known) that the software components included in the firmware updates were especially made or
12 adapted for installation on accused media players, and that installation of these software
13 components by others outside the United States would, if done within the United States, have
14 resulted in (and continues to result in) direct infringement of the '885 Patent under 35 U.S.C. §
15 271(a) because each such installation “makes” an updated player that meets every element of
16 every asserted claims.

17 223. Moreover, as a result of Google providing such firmware updates others have
18 outside of the United States combined the firmware updates in a manner that, if done within the
19 United States, would constitute direct infringement of claims 1-3, 5-10, 12-14 of the '885 Patent.
20 For example, users have, outside of the United States, installed the supplied software components
21 included as part of the firmware updates onto accused media players outside the United States,
22 which if done within the United States would constitute “making” updated Cast-enabled media
23 players, which constitutes direct infringement.

24 224. As another example, Google provides firmware to manufacturers, third-party
25 distributors, or an otherwise affiliated entity that acts in a manufacturer or distributor role, who
26 then, outside of the United States installs or loads such firmware onto accused media players. If
27 this combination were done within the United States, that act would constitute “mak[ing]” an
28

1 infringing device, which constitutes direct infringement of claims 1-3, 5-10, 12-14 of the '885
2 Patent under 35 U.S.C. § 271(a). *See also* Ex. CH (Sonos's infringement contentions).

3 225. Sonos has identified additional evidence of Google's inducing conduct in its
4 infringement contentions and interrogatory responses, which Sonos incorporates herein by
5 reference under Rule 10(c) for all purposes. *See* Exs. CH, CW.

6 226. Google's infringement of the '885 Patent is also willful because Google (a) had
7 actual knowledge of the '885 Patent and actual knowledge of Sonos's infringement contentions
8 no later January 8, 2021 when Sonos provided Google with a copy of the Amended Complaint,
9 (b) engaged in the aforementioned activity despite an objectively high likelihood that Google's
10 actions constituted infringement of the '885 Patent, and (c) this objectively-defined risk was
11 either known or so obvious that it should have been known to Google. *See, e.g.*, ¶¶ 17-30, 53-65,
12 above.

13 227. Given the five-year period over which Sonos put Google on consistent and
14 repeated notice of Sonos's patents and the breadth of Sonos's patent portfolio concerning
15 specifically the products accused in this case, detailed above, this knowledge establishes that
16 Google was, for some time periods, at least willfully blind to the fact that the '885 Patent existed
17 and, for other time periods, had actual knowledge of the '885 Patent. Further, this knowledge and
18 repeated and persistent disclosure establishes that Google, for some time periods, had at least
19 failed to investigate whether it infringed the '885 Patent despite the existence of a high risk of
20 infringement and, for other time periods, had actual knowledge of a credible and specific
21 allegation of infringement of the '885 Patent.

22 228. Additional allegations regarding Google's pre-suit knowledge of the '885 Patent
23 and willful infringement will likely have evidentiary support after a reasonable opportunity for
24 discovery.

25 229. Sonos is entitled to recover from Google all damages that Sonos has sustained as a
26 result of Google's infringement of the '885 Patent, including, without limitation, a reasonable
27 royalty and lost profits.
28

230. Sonos is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '885 Patent.

231. Google's infringement of the '885 Patent was and continues to be willful and deliberate, entitling Sonos to enhanced damages.

232. Google's infringement of the '885 Patent is exceptional and entitles Sonos to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

233. Google's infringement of the '885 Patent has caused irreparable harm (including the loss of market share) to Sonos and will continue to do so unless enjoined by this Court.

PRAYER FOR RELIEF

WHEREFORE, Sonos respectfully requests:

- A. That Judgment be entered that Google has infringed at least one or more claims of the patents-in-suit, directly and/or indirectly, literally and/or under the doctrine of equivalents, and that such infringement is willful;
- B. An injunction enjoining Google, its officers, agents, servants, employees and attorneys, and other persons in active concert or participation with Google, and its parents, subsidiaries, divisions, successors and assigns, from further infringement of the patents-in-suit.
- C. An award of damages sufficient to compensate Sonos for Google's infringement under 35 U.S.C. § 284, including an enhancement of damages on account of Google's willful infringement;
- D. That the case be found exceptional under 35 U.S.C. § 285 and that Sonos be awarded its reasonable attorneys' fees;
- E. Costs and expenses in this action;
- F. An award of prejudgment and post-judgment interest; and
- G. Such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Sonos respectfully demands a trial by jury on all issues triable by jury.

Dated: July 8, 2022

By: /s/ Cole B. Richter

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